PRACTICAL PHYSIOLOGY.

Lectures on EXPERIMENTAL PHYSIOLOGY.

By WM. RUTHERFORD, M.D., F.R.S.E.,
PROFESSOR OF PHYSIOLOGY IN KING'S COLLEGE.

LECTURE III.

IRRITABILITY.—(*Continued.*)

GENTLEMEN,—We have seen that every living tissue is possessed of the property which is termed irritability. I defined irritability as the power of energising on the application of a stimulus, and pointed out that all irritants or stimuli are forms of actual energy, and that their action may be referred to their power of producing a commotion in the particles of the tissues, which causes them to evolve certain forms of energy. I further showed you that the result which follows the application of an irritant to any tissue depends on two factors—to wit, the power of the irritant and the irritability of the tissue. We shall now study the means by which the irritability of the tissues may be raised or depressed; in other words, we shall consider how the proneness of the tissues to energise may be increased or diminished. Take care to draw a distinction between the *irritation* of a tissue and the variation of its *irritability*. It is necessary to carefully remember this, for many agents which alter irritability also *irritate* when they are suddenly brought to bear upon the tissue. For example, if heat be applied very gradually to a nerve, its *irritability* is increased; but if a considerable amount of heat be suddenly applied, a commotion resulting in the evolution of energy takes place amid the particles of the nerve; the nerve is *irritated*.

You have witnessed this effect of heat upon the irritability of nerves. You have seen that if heat be removed from the skin the nerves lose their irritability, and regain it when heat is permitted to re-enter the tissue. This effect of temperature seems to be common to all irritable tissues. The withdrawal of heat diminishes, the addition of heat increases, irritability. If, however, too much heat be added, the irritability of the tissue is lowered, and, it may be, annihilated. The normal chemical composition of the tissue is of course destroyed.

A galvanic current has a remarkable effect upon the irritability of muscle and nerve. It may have a similar influence on other irritable tissues; but this point has not yet been investigated. Let us see what is its influence upon a nerve. In the performance of this experiment it will be necessary for us to send a galvanic current in different directions along a nerve—up the nerve at one time, and down it at another. A convenient instrument for enabling us to alter the direction of the current is Pohl's commutator. This instrument (c, Fig. 8) consists of a circular piece of mahogany, in the upper surface of which are six holes filled with mercury. A brass pin (1_1, &c.), with a screw for fixing a wire, is placed opposite each hole around the circumference of the wooden disc. The hidden ends of these pins communicate with the mercury in the cups. A bridge of copper wire (M) is connected with the upper surface of the instrument. The centre of the bridge consists of glass and sealing-wax, to act as an insulator between its two copper extremities, which rest in two opposite holes (1_1 and 1_4) of the commutator. Two curved copper wires are soldered at right angles to the metal part of the bridge. By turning the bridge upon a horizontal axis the ends of these transverse wires may be made to dip into the two mercurial cups to which I point (1_2 and 1_3), while by turning the bridge in an opposite direction the curved wires are removed from these holes, and their other ends are brought into the two holes opposite (1_5 and 1_6). There are two oblique wires upon the upper surface of the wooden disc. These have no connexion with each other, but join the mercurial cups, into which they dip.

We now take a small Grove's cell, Du Bois Reymond's key, and some insulated wires; connect two wires to the battery; attach one of them to this pin of the commutator (1_4), join the other wire to the key (K), and place a wire between the key and this pin of the commutator (1_1). Join another pair of wires to these pins of the commutator (1_2 and 1_3), and push the free ends of these wires through holes in a strip of gutta percha to insulate them. Upon these wires we shall lay our nerve (N). I shall now draw a diagram indicating the arrangement of the apparatus, so that you may be able readily to understand what we are about. (See Fig. 8.) Suppose that the sciatic nerve with the gastrocnemius attached has been laid on the wires, and that we place the handle of the commutator in the position which I have represented in the diagram. On closing the key the current will enter the commutator by 1_1, leave it by 1_2, and pass down the nerve towards the muscle. In this case the wire nearest the muscle will be the negative pole. But if the handle of the commutator be turned so as to detach it from the cups at 1_2 and 1_3 and connect it to those at 1_5 and 1_6, the current will pass from 1_1 to 1_5, along the oblique wire from 1_5 to 1_3, and thence to the nerve. In this case the + pole will be nearest the muscle. I now dissect out a sciatic nerve, as you have already seen me do. As usual, I leave it connected with the muscles of the leg. I fix the femur in a pair of forceps on a stand as before, and I lay the nerve on the wires. Now close the key and send the current through the nerve. The muscle contracts. *The current is still passing, but the muscle is at rest.* Open the key, and thereby arrest the current. The muscle contracts again. You irritated the nerve by closing and opening the galvanic current. But you saw that this irritation did not continue as long as the current did. Perhaps you may suppose that the nerve is only affected by the current when it begins and ends. We shall see that such is not the case. We shall see that, although the nerve is *irritated* only when the current begins and ends, its *irritability* is affected all the while. How shall we ascertain that this is the case?

FIG. 8.

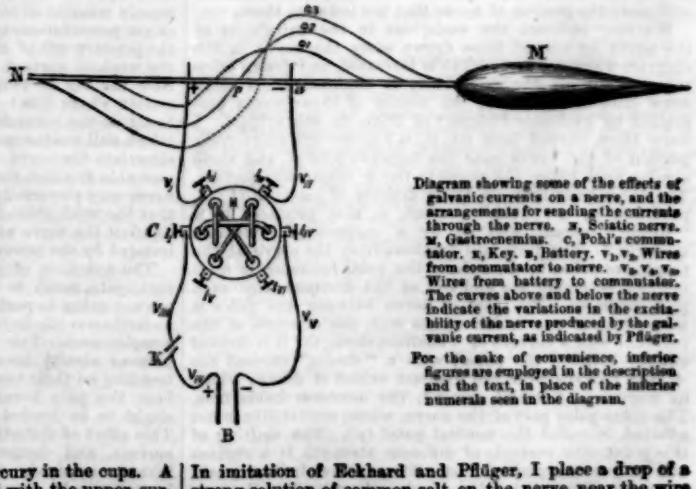


Diagram showing some of the effects of galvanic currents on a nerve, and the arrangements for sending the currents through the nerve. N, Sciatic nerve. M, Gastrocnemius. C, Pohl's commutator. K, Key. B, Battery. V_1, V_2, Wires from commutator to nerve. V_3, V_4, V_5, Wires from battery to commutator. The curves above and below the nerve indicate the variations in the excitability of the nerve produced by the galvanic current, as indicated by Pflüger.

For the sake of convenience, inferior figures are employed in the description and the text, in place of the inferior numerals seen in the diagram.

In imitation of Eckhard and Pflüger, I place a drop of a strong solution of common salt on the nerve near the wire which is next the muscle. I put the salt on the muscle side of the wire (a). ..... The toes are now all trembling; the salt is irritating the nerve. The bridge of the com-

mutator has been arranged so that the − pole of the circuit will be the pole nearest to the spot where the salt is acting on the nerve. Now close the key (K). ..... You observed that the leg gave a jerk when you did so. That, of course, is quite what you expected it to do; but notice that the movements of the toes *continue to be greatly increased.* This increase is due to the influence of the − pole upon the spot where the saline irritant is acting. Turn the handle of the commutator, and so reverse the direction of the current. The movements of the toes have ceased. Do you fancy that you have killed the nerve? Not at all. The result you witness is only due to the depressing influence of the + pole, which is acting on the irritated piece of nerve. To convince yourselves that the nerve is not dead, reverse the current. Now you see that the toes are moving again more vigorously than ever. We see, therefore, that the negative pole increases the influence of this saline irritant upon the nerve, while the positive pole diminishes it. But now I shall show you something more. The current we have just used was a weak current. We shall now take a battery of *seven* Grove's cells instead of *one*, and send its current through the nerve. Again the − pole is next the saline irritant; but see how different is the result of closing the current now. There was a momentary increase of the tetanus of the muscles on closing the current; but you see that now the toes are at rest, just as if the + pole had been acting on the irritated spot. Reverse the current, and bring the + pole to bear on the seat of irritation: there is no difference—the leg lies still. Reverse the current again: the result is the same. Stop it altogether. See how slowly the movements of the toes are returning. The nerve seems to be recovering from some influence which has been too much for it.

We have seen, then, that when the − pole of a weak galvanic current was brought to bear upon the irritated spot of this nerve, the effect of the irritant was increased; but this same pole, in the case of a much stronger current, reduced the action of the irritant, just as the + pole of both currents did. We cannot believe that these results are due to an action of the galvanism upon the irritant, for the same phenomena are observed when a mechanical stimulus is employed. We are, therefore, compelled to ascribe the results to an influence upon the excitability of the nerve itself. The + pole lowered the excitability; the − pole increased it when the current was weak, but lowered it when the current was very strong. You saw that I placed the salt on a portion of nerve which does not lie between the wires; the irritated spot, therefore, did not form a part of the electrical circuit. Our experiment has, therefore, shown that the poles of a galvanic circuit influence parts of the nerve which lie outside them. Let me simply state that certainly they influence still more the portion of nerve that lies between them.

We may indicate the variations in the irritability of the nerve by curved lines drawn *above* the nerve in the diagram when the excitability is increased, and drawn *below* the nerve when the excitability is diminished. I shall draw lines indicative of the results of experiments performed by Professor Pflüger,* of Bonn, on this subject. I draw three curved lines (o_1, o_2, o_3) above the extra-polar portion of the nerve near the negative pole −, and three similar ones below the nerve in the + extra-polar portion. The three lines indicate three degrees of excitability: o_1 produced by a "weak" current, o_3 that produced by a "strong" current, and o_2 by a current of "medium strength." The lines are furthest from the nerve at the respective poles, because there the polar influence is most marked, becoming less and less as the distance from each pole increases. The part of nerve between the poles is affected in a way which varies with the strength of the current: with a current of "medium strength" it is divided equally between the poles; with a "strong" current the + pole prevails over the greatest extent of nerve; while, as regards a "weak" current, the converse holds true. The intra-polar part of the nerve, whose excitability is not affected, is called the neutral point (p). The shifting of this point with currents of different strength is a curious and as yet unexplained fact. These curves indicate, as I have said, Pflüger's results. I give them because they are generally accepted. We have seen, however, that the − pole of a very powerful current *lowers* the excitability. We did, indeed, see that it caused an increase in the excitability for a moment or two, but this merely ushered in a decided depression of the irritability. Pflüger's results, therefore, hold true for somewhat weak currents. They are misleading if this be not remembered. But there is more than this which it is important for you to know. In many experiments which I have performed with regard to this question, I have found that if we operate upon the nerves of weak frogs—for example, frogs that have been kept on water for a winter,—a current such as the *weaker* of the two which I have employed to-day is sufficient *to lower the excitability at the − as well as at the + pole.* If it does not bring this about at once, it does so after it has passed through the nerve for some time. *In weak states of the nerves, therefore, weak currents do what stronger currents are required to do when the nutrition of the nerves is more vigorous.* A galvanic current is often used to lower the excitability of sensory nerves when this is raised above a normal degree. The − pole is more powerful than the + pole in allaying this morbidly increased excitability or hyperæsthesia. Why the − pole should be more efficacious than the + pole I cannot say. Find out the explanation if you can; and, in searching for it, keep in mind these facts: the − pole increases irritability if the current be weak, while it lowers it if the current be powerful or long-continued; the − pole is a more powerful irritant than the + pole. But no doubt you will ask, what is to be considered a *weak* current, and what is to be called a *strong* current for the galvanisation of human nerves? It is impossible to say with anything like precision; for, as I have pointed out, a weak current will, in the case of a weak nerve, do what a stronger current is required to do in the case of a perfectly healthy nerve. Speaking generally, however, we may say that, for human nerves, a galvanic current derived from six to ten Smee's or Daniell's cells is a weak current; while that obtained from fifty to sixty cells is a strong current.

The state into which a nerve or a muscle is thrown by the passage through it of a galvanic current is termed the electrotonic state of nerve or muscle. In this state all the vital properties of the tissue are affected. It does not, however, at present concern us to inquire into all the changes which the electricity effects. We have meanwhile only to do with the effect upon irritability.

Gentle stimulation of a nerve or a muscle increases its irritability; over-stimulation diminishes it. I take a fresh sciatic nerve and leg of a frog. We shall stimulate the nerve by faradic currents from Du Bois Reymond's machine (Fig. 1, THE LANCET, January 21st, 1871). I separate the two coils of the apparatus widely apart. Now apply the electrodes to the nerve, and set the machine in action. Although we are sending currents through the nerve, the muscle remains at rest. Why? Because the irritant is not as yet powerful enough. Push the secondary slowly towards the primary coil of the machine, and in that way find out the weakest current that is able to stimulate the nerve. Now the leg is twitching. Let the secondary coil now remain where it is. We shall permit this feeble stimulus to act on the nerve for half a minute or so. ..... Let us now take a still weaker current, one that was previously unable to stimulate the nerve. ..... You see that a feebler stimulus is now able to affect the tissue. We shall now stimulate the nerve very powerfully for a while, and you will then observe that the weak stimulus which has hitherto proved sufficient to affect the nerve will fail to do so. The nerve will be exhausted by the powerful stimulation.

The nutrition of an irritable tissue has, as one would anticipate, much to do with its irritability. Although we are not going to perform any experiments on this point, I nevertheless allude to it in this connexion for the sake of completeness. You may observe daily how irritable weak persons almost invariably are. You can scarcely avoid treading on their toes in some way or other. They cannot bear the pain borne by stronger persons. Irritants too slight to be heeded by the strong worry and annoy them. This effect of defective nutrition upon nerve-tissue is most curious, and demands more careful study than it has hitherto received. Of course if the nutrition of the tissue be completely arrested irritability disappears altogether. The curious point is, that a nerve whose nutrition is to some extent defective should discharge its energy more readily than one whose nutrition is perfect.

* Electrotonus. Berlin, 1859.

Various mechanical influences affect irritability. If you crush or tear an irritable tissue, you injure the structure and lower the irritability. I pinch the end of this nerve with a pair of forceps. The muscle contracts because the nerve is irritated. I pinch the same piece of nerve again; but this time the muscle is motionless. My first pinch destroyed the tissue and annihilated its irritability.

Various chemical agents affect irritability. For example, strychnia affects the irritability of the excito-motor nerve cells or fibres contained in the spinal cord. It at first increases, and then, if the action be long continued, it diminishes, the irritability. Let us convince ourselves of this. On pinching the foot of this frog, you see that it jumps away in a vigorous but at the same time sedate manner. It does not seem to be particularly annoyed by such an irritation. We shall see how it answers to our stimulus after it is poisoned with strychnia. ..... [A few drops of a solution of strychnia were introduced under the skin. The reasons for this procedure were explained. After waiting for a little while the skin of the animal was merely touched, with the effect of throwing the animal into tetanic spasm.] You see that a mere touch on the skin produces a result far greater than a pinch of the foot did before the animal was poisoned. At present we shall not proceed to ascertain experimentally what are the parts of the nervous system upon which the poison acts. I simply say that the result you witness is due to an increase in the irritability of excito-motor nerve cells or fibres in the spinal cord. The reason why these parts are fixed upon as being the seats of action of the poison will be afterwards shown to you. I now give the animal a large dose of the poison. We shall soon find that a touch or a pinch will fail to call forth any reflex movements. The cause of this is loss of irritability of the excito-motor cells or fibres in the cord. The irritability of the peripheral terminations of voluntary motor nerves is lowered by another poison—curara. ..... [Some curara was injected under the skin of another frog. When the motor paralysis had supervened, the skin was removed from the legs, and it was demonstrated that the paralysis was due to loss of irritability by the motor nerves.] Many other substances affect nerve irritability; others affect muscle irritability. But we shall not for the present enter into a further consideration of this matter.

You have seen that the irritability of certain tissues may be affected by various agents. You have seen that some agents increase, while others diminish, the proneness of the tissues to energise. The facts which you have witnessed will doubtless lead you to ask for their explanation. Unhappily, you must accept hypotheses until you or others furnish explanations which are more satisfactory. Bear in mind that the evolution of energy in living tissue implies chemical changes. We may safely say that a certain chemical composition of a tissue is essential for the evolution of energy within it. Now you are doubtless aware that the application of heat to various chemicals increases their proneness to change. How slowly oxygen acts upon iron at ordinary temperatures; how rapid the action becomes when heat is applied; and so on. Heat no doubt plays the same *rôle* with regard to the chemical changes that take place in the tissues. Heat increases irritability, probably because it increases the proneness to the chemical changes which are usually connected with the energising of the tissue. If too much heat be applied, however, chemical changes take place which result in the death of the tissue. With regard to the influence of chemical agents, it is conceivable that they may combine with, or decompose the molecules of, the tissue, and so alter the composition that the evolution of energy takes place more slowly or more rapidly. It is also conceivable, however, that by their mere presence amid the particles of a tissue, they may, without altering their composition, influence their powers of energising. The influence of an electric current upon irritability has been referred by Ranke and others to electrolysis of the tissue. Ranke* has endeavoured to show that the acids formed by the current at the + pole lower, while the alkalies formed at the − pole increase, excitability. Du Bois Reymond referred the influence to polarisation of the particles of the tissue: the polarisation at the − pole increasing irritability; that at the + pole diminishing it. I do not think that we are at present in a position to give a decided preference to the one view or to the other.

* Die Lebensbedingungen der Nerven. Leipsic, 1868.

I enter into these theoretical considerations just for the sake of completeness, and also in order to tempt you to make them subjects for study. In conclusion, I would draw your attention to this interesting fact: if you increase the irritability of a tissue, you cause it to *live faster* than it will do if its irritability be kept low. I have here two frogs' legs, with their nerves. One has been kept in a moist chamber, cooled by iced water dropping upon it; the other has been kept in a similar moist chamber, heated to 100° Fahr. Both have been in these chambers for an hour. I stimulate the cold nerve; the muscle contracts. I stimulate the heated nerve; the muscle is motionless. I stimulate the heated muscle; it contracts feebly. The heat has killed the nerve. But certainly this temperature was not sufficient to kill the tissue at once; on the contrary, it is a temperature which for a time *increases* the irritability of a frog's nerve. The heat seems to accelerate the life of the tissue. Think over this interesting point, and you will not fail to perceive that it is one of much importance.

ON AN

IMPROVED VULCANISED INDIA-RUBBER CATHETER, FOR RETAINING WITHIN THE BLADDER.

By SIR HENRY THOMPSON,

SURGEON-EXTRAORDINARY TO H.M. THE KING OF THE BELGIANS; PROFESSOR OF CLINICAL SURGERY AND SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

For many years I have used the vulcanised india-rubber catheter for tying in the urethra and bladder, and have found it, as many others have done, extremely valuable from its perfect flexibility, and the consequent small liability to excite irritation which its presence produces. In most cases it is easily kept in place by a loop of soft twine, loosely tied round the penis, just behind the glans; but in a few instances this very quality of flexibility, which is so advantageous, permits the escape of the instrument from the canal, and difficulty is experienced in efficiently retaining it there. Hence Mr. Holt's suggestion of "wings" to the end of the instrument which lies within the bladder. Efficient as these may be when *in situ*, although they unquestionably sometimes occasion irritation, an instrument so furnished does by no means always pass easily, and usually causes more uneasiness, both in the act of passing and afterwards, than a catheter not furnished with such appendages.

The problem, then, is to efficiently maintain the soft vulcanised catheter in place without making additions of this kind. This I have accomplished, I believe completely and successfully, in the manner following:—Into an ordinary vulcanised india-rubber catheter, say about the size of 8, 9, or 10, or more, according to the requirements of the case, a thin German-silver tube, about four or five inches long, is introduced by the maker, so that the last six inches of the catheter remain as flexible as ever, also about two inches of the anterior part, to form a spout or conductor outwards for the urine. This being done, the calibre of the interior is still nearly uniform,—the thinness of the metal tube and the elasticity of the india-rubber being so accommodated to each other as to accomplish this object. This description has been practically realised for me by Messrs. Weiss, the well-known instrument makers. (See figure.) The instrument is furnished with a silk cord to fasten it, which, owing to the metal tube, cannot diminish the choke or diameter.

The advantages of this catheter are several:—

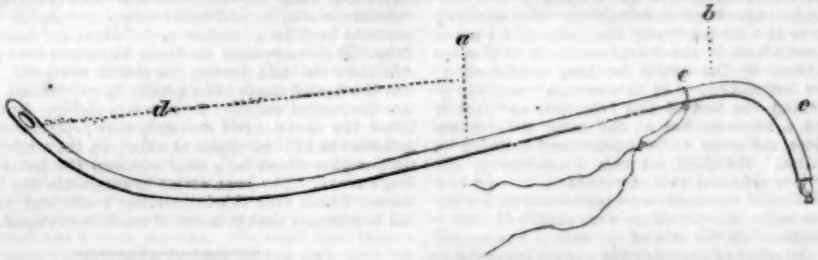
First, not only is it not more difficult to pass, but less so than the original instrument without wings, since the metal tube affords a handle which almost invariably carries the flexible part beyond it easily into the bladder.

Secondly, when the loop of silk with which the catheter is provided is loosely tied behind the glans, it is next to impossible for the instrument to escape; the want of flexibility in the silvered part securing this. In special cases

in which it is desired, the silver may be shortened to two or three inches with perfect security.

Lastly, since no appendage exists in that part of the catheter which is within the bladder, the liability to retain any phosphatic deposit is reduced to a minimum, and no special attention to remove such foreign matter is always necessary. In one instance I kept it in six weeks without the slightest incrustation occurring. It is, however, as a rule prudent to remove the catheter every few days to observe if any takes place, and this is a matter of no consequence, as no difficulty or pain arises from its reintroduction.

Wimpole-street, W., January, 1871.



Improved vulcanised india-rubber catheter.—*a* to *b* shows the length of the German-silver tube which at this part lines the tube and stiffens it. *c*. Anterior portion of catheter, which remains flexible, and conducts away the urine; a peg is fitted into it. *d*. Posterior portion of catheter, which remains flexible, and rests in the urethra and bladder. *e*. A piece of stout silk, the free ends of which, lightly tied behind the glans penis, secure the catheter in its place.

NOTES ON THE CHOLERA EPIDEMICS IN EAST AFRICA.

BY JAMES CHRISTIE, M.A., M.D.,
OF ZANZIBAR.

(*Concluded from p.* 115.)

Progress of the Epidemic in the Town and Island of Zanzibar.—The progress of the epidemic in the town and island was very marked, and it may be stated, generally, to have spread from the lowest to the highest classes of the population, dividing it into distinctly-marked periods. The population of Zanzibar is comprised of negroes from every tribe and country, Arabs from Sheher and Muscat, settlers from the Comoro Islands, natives of India, Turks, Persians, Beloochees, Abyssinians, Goanese, Europeans, and Americans. All these different classes stand out distinct from each other with a greater or less degree of prominence; and although all are mixed up in matters pertaining to business, they are entirely distinct in all their social relations, and they are congregated in different quarters of the town.

The first period of the epidemic was amongst the Sheheri Arabs and their slaves, the slaves being attacked first. It appeared first in the house of a Sheheri Arab, who had some connexion with the dhow which came from Pangani and anchored in the harbour of Zanzibar on the 27th of October. He is the principal owner of the hamalis, or porters, a large number of whom are constantly employed in loading and discharging vessels, and in carrying goods from one part of the town to another, there being no other means of conveyance. The Sheheris reside in one district at Melinda, and, forming the poorer section of the Arab community, are employed as mat-makers, butchers, soldiers, and many of them, when not otherwise employed, work along with the hamalis as porters. They suffered first and very severely; indeed, to such an extent was their number cut down that their work for a time came to a stand-still.

During the second period of the epidemic, from the middle to the end of November, the entire slave population throughout the town, the Comoro and Johanna people, and, towards the end of the month, the Muscat Arabs, were attacked by the disease. The people from Comoro and Johanna, a mixed race of Arabs and negroes, have settled in considerable numbers in Zanzibar, and with their slaves inhabit their own quarter. Being more intelligent than the negroes, and very poor when they emigrate to Zanzibar, they are employed as head servants and overseers, and being keen slave-dealers they invariably invest their savings in slave property, generally boys and girls, who are employed in large numbers in picking orchella weed, copal washing, &c. Everyone owns a few slaves, and many of them considerable numbers. The quarter which they and their slaves occupy is strictly native. They live in huts thatched with cocoa-nut leaf, and divided by internal partitions into small rooms, and the utmost care seems to be taken that neither light nor air should enter the room. Even during the midday glare of a tropical sun the house is as dark and stifling as a dungeon. The houses are set down without any regard to order, or as if the arrangement had been intended to prevent the possibility of a free current of air from reaching any part of them. The slaves of these people are poorly fed, the masters only allowing them about three half-pence a day for their food, and their condition is much below that of the slaves of the Sheheri Arabs, who are well-fed, muscular men. The mortality amongst this class was very high; at least 50 per cent. of the slaves died during the epidemic, and of the masters and their families not less than 15 per cent.

During the month of November (except in three cases), the ravages of the epidemic did not extend beyond the Arab populations, beginning first with the slave population; and, the deaths occurring in districts apart from that of the Europeans, little was known of it except by reports, and these were considered to be exaggerated, as few of the symptoms usually attending cases of cholera were described. During the month of November the temperature was very high, and the winds were light, so that the heat was excessive for Zanzibar, and it was at first supposed that the cases of sudden death had taken place from sunstroke or heat apoplexy among those whose occupation was in the open air and in hot ill-ventilated sheds. The hamalis and coolies at work in the open air, and the slaves engaged in the picking of orchella weed, were suddenly seized with vertigo, fell down in a state of stupor, and were carried to their huts, death ensuing in a few hours. Everyone seized seemed to know instinctively the deadly nature of the seizure, and they staggered to their homes to die. The lightning-like rapidity of the seizures, and the rapidity with which death followed, filled the negroes with consternation; and, observing that none of the Europeans had been attacked, from some superstitious reason or other they commenced to whitewash the bodies of the dying to make the evil spirit, who was supposed to be the author of their calamities, believe that they were white men. But the epidemic continued its ravages among the coloured population, the Sheheri and the Muscat Arabs, and the people of Johanna and Comoro, till the end of November.

The third period of the progress of the epidemic occurred at the end of November and beginning of December, when the natives of India were attacked. These people are more distinctly separated by their usages from the general population than any other section of the community. They themselves are separated into three classes, the Khojahs, the Bahoras, and the Banyans, the two former being Mahomedans of different sects, and the latter Hindoos. Numerically the Khojahs are the most important class, there being about two thousand resident in the town; the Banyans rank next, while the Bahoras form a very small community. These three classes are entirely distinct in all their social

relations, the Banyans being more isolated from their fellow-countrymen and the general community than any other class. They are vegetarians, and only certain edible vegetables are eaten. They are exceedingly particular regarding the water they use, but not with regard to its quality or purity. In Zanzibar they draw it from a well of their own in the town, and nothing would induce them to drink water, or even touch it, if not drawn by themselves. With regard to diet they are also very fastidious. They eat by themselves, and in secret, and should a stranger enter while at a meal, it is considered to be contaminated by his presence. Nothing left over from a meal is kept, and the leaf platters which they use are also thrown away. They burn their dead, and also the clothes of the deceased person; and although their houses are far from being clean in the European sense of the term, yet they are generally free from putrid decaying matter. In none of the former epidemics of cholera was the Banyan population affected; and in that under consideration, although there were a few deaths, it never spread amongst them as an epidemic. The same may be said of the Bahoras, of whom several died, but only two were resident in the place, the others being strangers from Pangani, Pemba, and India. We shall refer hereafter to the great mortality among strangers.

It was the Khojah class, then, that suffered most severely or most prominently during the month of December, the disease still continuing its ravages among the other classes of the population, and reaching its greatest intensity about the middle of the month.

The Khojahs, in Zanzibar, are nearly all from one district in India, and they are intimately mixed up by marriage relations, even cousins and second cousins being regarded as near relatives and forming family ties. As a class they are exceedingly kind and affectionate towards each other, more so than I ever imagined any people could be; and in a case of serious illness all the friends hurry to the house, sometimes crowding it to suffocation, and there is a constant stream of comers and goers. No one could fail to admire the devoted kindness of these people towards each other; but, although warned against the danger from contagion, custom prevailed, and, panic-stricken, they hurried by day and night to the houses of their suffering relatives, and too often carried to their own homes the fatal disease, under which they themselves fell victims. Knowing the Khojah population intimately, it appeared evident to me at the time that the great violence of the epidemic amongst them resulted from such intercourse. This, however, was not always the case; at least not evidently so, as the epidemic even amongst them moved about from place to place in the most mysterious manner. At one time all the new cases would occur within a very limited range in one district of the town, and again at some other, and on some occasions it would appear in three contiguous houses on one side of a street, on others in two on one side and in one on the opposite side.

Towards the close of December the disease gradually abated, and hopes were entertained that it had ceased as an epidemic, only a few isolated cases occurring here and there throughout the town; but during these terrible two months there fell in the town and suburbs from 10,000 to 15,000 people—at least 12 per cent. of the whole population having perished, and amongst these, out of a population of 2000, 100 Khojahs.

During the fourth period of the epidemic, the disease spread throughout the island generally in all directions, and appeared in its greatest intensity during the month of January. The rate of mortality was not nearly so high in the country as it was in town, the people being as a matter of course more scattered. At the beginning of January cholera appeared on the estate of Messrs. H. A. Fraser and Co. at Kokotoni, situated at the northern part of the island, and at the close of the epidemic the mortality was estimated at 5½ per cent. Great care had been taken to isolate all the cases, and every means used to prevent the spread of the disease, and all those attacked were under medical treatment. As no such precautions were used on the estates owned by Arabs, the deaths among their slaves must be estimated at a much higher rate.

From the daily intercourse between town and country in all directions, the spread of the epidemic to every corner of the island can easily be accounted for. Starting from the Shambas early in the morning, and from distant estates at midnight, numbers of slaves make their way towards the town, loaded with the produce of the country, and converge at the market-places at from seven till nine o'clock, which are then almost impassable. Threading their way through the dense mass, the dilals, or auctioneers, dispose of their wares to the highest bidder, the slaves who sold a few vegetables on their own account being the buyers. Slaves who have any article of clothing to dispose of, such as a cap or loin-cloth, dispose of it in this manner. During the month of December, when the mortality was at its highest, the clothing of the dead thousands was thus sold in the markets, and I have no doubt that by this means the disease was sown broadcast over the island. If the filthy rags could be bought for a few pice they were speedily purchased, and were put on at once as articles of clothing.

In so far as the natives of Zanzibar were concerned, or, more strictly speaking, those permanently resident on the island, the disease ceased towards the end of January as an epidemic, isolated cases occurring here and there throughout the town and country. The actual mortality, however, was sometimes very great, leading one to suppose that the epidemic had broken out afresh; but on investigating the cases it was found that it was strangers who had recently come to the island who suffered.

This leads me to consider the progress of the epidemic among strangers—namely, the crews of vessels in the harbour and of native craft passing to and fro. The Cutch and Bombay dhows, and various native craft from the Arabian shore of the Persian Gulf, come to Zanzibar during the north-east monsoon, and towards the close thereof, the Somalis make their appearance, increasing the population very largely. Dhows also are constantly running to and from the mainland, so that the passing population during the months of January, February, March, and April is very large. From the commencement of the epidemic the mortality was always high in the harbour, especially among the native craft, which are unsurpassed in regard to filth and every abomination, and they appear to have communicated the disease to European vessels even in passing. Early in December, and a day or two after sailing, cholera appeared in H.M.S. *Cossack*, but only one man died, a native boy having been attacked first. In the middle of December a merchant vessel was attacked, and in a few days six out of nine of a crew died, while many native craft had to be abandoned. Starting with cholera actually among the crew, or appearing soon after sailing, and spreading rapidly, they ran for the nearest port, or put back disabled. Towards the end of January the crews of three European vessels in the harbour were attacked at nearly the same time, and, in the case of two, at nearly the same hour. A building, the property of the Government, was kindly given for the purpose of a hospital for the use of the crews by Dr. Kirk, Her Majesty's Acting Consul, and from that time all the cases which occurred were promptly removed on shore, and treated to a termination. During the months of February and March the epidemic prevailed in the harbour, and several cases occurred on shore among the wealthier Arabs. Several dhows running to Madagascar had to put back disabled, and in March the loss in native vessels reached its maximum. In the month of April it broke out at Bagamoyo, amongst the natives in connexion with the Roman Catholic Mission, and in Zanzibar amongst the Bahoras; but those who were attacked were all strangers from Pangani and India. The mortality was also very great among the Somali strangers, and was principally confined to them, the deaths from cholera being about thirty daily. During the month of May very few cases appeared in town, but the mortality in the harbour was still great, owing to the disease having been brought back from Kilca in slave dhows, and this state of affairs continued till the end of June. In the middle of July the last case that I heard of occurred.

In connexion with the epidemic in May and June, when the disease was continued in the harbour, by the cholera being returned from the slave mart at Quiloa, I cannot but mention the shocking condition of the slaves imported to Zanzibar at that time, although this is somewhat apart from the subject under consideration. I speak of nothing in connexion with this subject of which I was not an eye-witness, and which I did not note at the moment. During the first two weeks in May several cargoes of slaves were

landed at the custom-house in the most horrible condition imaginable, and I believe that it is only at the harbour of Zanzibar that a living skeleton, reduced to that state by compulsory starvation, can be seen. On May 17th a cargo of slaves in this condition was landed at the custom-house. I was informed, and I have every reason to believe correctly, that about 250 had been put on board at Kiloa, with only a little food and no water, in a very small dhow. I saw the dhow coming into the harbour with its living cargo crouched together as closely as people could stand or could be packed. The dhow had been three days on the passage, and cholera was said to have broken out on board, seventy having died. The duty on slaves is paid on their passing through the custom-house at Zanzibar, so that, to save that expense, the dying wretches were left to expire on the sands, and the living skeletons were driven and dragged and kicked along past my door in open light during the forenoon, and a scene such as this excited no surprise. In the evening of the same day one of the cargo, a female, was picked up by two other gentlemen and myself at the outskirts of the town, while staggering towards it, falling down in a state of utter exhaustion every short time. She was kindly cared for till her death, nearly two weeks after, by the Right Rev. Bishop Tozer, and her story was to the effect that when the dhow was skirting the beach before coming into the harbour, she and two others were thrown overboard, and that the water being shallow she managed to wade to the shore without being drowned, but she thought that the others were dead. Such cases are not exceptions, but the rule in the conveyance of slaves. While the woman was alive the case was reported to the English Consulate, the circumstances stated, and the brand to identify the slave was given; but nothing whatever was done by the Government of his Highness the Sultan to investigate the case and disprove the woman's statement, although the case could have been traced out with the greatest ease, the real fact being that the murder of slaves is no crime, no more than the wanton crushing of a worm. Slaves after landing are, as a general rule, not unkindly treated in Zanzibar, but that such scenes as occur in slave dhows during the course of their transmission should be allowed is a disgrace to civilisation. The horrible sufferings to which these miserable wretches are wantonly exposed is unsurpassed—indeed, it could not be surpassed; and this takes place as a matter of course in open daylight, without even an attempt to screen it, even with the sanction of a Government having treaties with European nations, and, in fact, supported by them. Slave gangs are driven along the streets in broad daylight, reduced to a skeleton-state by starvation and disease, men, women, and children, none having more than a small piece of coarse bagging or some twisted leaves to cover their nakedness, and many as naked as when they were born—not children, but grown-up men and women, without even the primitive "fig leaf." No estimate could be given of the ravages of the epidemic amongst these, the most miserable of all God's creatures since man was created.

During these dreadful months, the natives of India, who keep an exact record of all their deaths, lost 6¼ per cent. of their people. The mortality amongst the Arabs and other races between them and the slave population could not be less than 10 per cent.; and the death-ratio amongst the negroes reached at the very lowest 25 per cent., and that amongst the floating population was at least as high. The mortality in the town and suburbs I estimate at 15,000, and throughout the island generally at 25,000. Connected with the shipping, nineteen Europeans and Americans died. No Europeans nor Americans *permanently* resident on the island died, and only two were attacked, although the number at the time of the epidemic was about sixty.

Regarding the sanitary state of the town, it can only be said that it is filthy in the extreme, the only clean quarter being that occupied by the Europeans. Nothing beyond this, and what has been already referred to, can account for the violence of the epidemic in December, unless it be that it was the month of Ramadan, when all the Mahomedans fast from before sunrise till sunset.

The fast was generally observed, and by the Bahoras in particular, with the greatest strictness. They did not suffer in consequence; but I observed among the larger population of the Khojahs that many were seized with the first symptoms after the full evening meal; but in the great majority of cases among the natives of India the seizure was in the early morning, between three and six o'clock.

Zanzibar, August 30th, 1870.

P.S.—I was kindly permitted by Dr. Kirk, H.M. Acting Consul at Zanzibar, to extract what information I could from the archives at the Consulate. Dr. Kirk, in his reports to Government, states that the first epidemic occurred in 1840–45; but on showing him my data for fixing it at 1835–36, he agreed that it was the proper date, that given to him being stated in general terms, without any means of correction or proof, and I was requested by him to notice this in my report.

It is stated in this article that reports had reached Zanzibar that cholera had broken out and spread in the Uniamezi country. As this report may reach Europe from other sources, I beg to contradict it. The latest letters received from Uniamezi make no mention of cholera being there, or at any point to the west; but it is undoubtedly still present on the Uniamezi caravan route, and caravans proceeding from that country have been attacked. My Arab informant stated to me yesterday that a caravan in which he is interested was not many days ago attacked by the disease at three days' march from the coast, at Bagamoyo, and reports confirmatory have come from a Roman Catholic missionary at present in the district, that in travelling towards the interior he had to deflect his course owing to the number of putrid bodies lying near the path. The mortality was confined to the pagazi, or porters.

In so far as we know, the region where Dr. Livingstone is supposed to be is free from the epidemic; but there will be great difficulty in forwarding supplies through the infected regions.

ON THE COLOUR OF THE EYES OF THE NEWLY BORN.

BY ALFRED WILTSHIRE, M.D., M.R.C.P. LOND.,

JUNIOR PHYSICIAN TO THE WEST LONDON HOSPITAL, PHYSICIAN TO THE BRITISH LYING-IN HOSPITAL AND TO THE SAMARITAN HOSPITAL, LATE MEDICAL INSPECTOR TO H.M. PRIVY COUNCIL.

SOME years ago I was struck with the fact that all the newly-born children I saw had blue eyes. I have not met with an exception to this observation. The colour is peculiar; it is slaty, mercurial-ointment, or leaden blue, generally different from the blue colour which obtains in after-life. Owing to the heaviness of the hue, infants are sometimes said to have "dark" eyes, when, on closer inspection, the eyes are seen to be of the dull-blue colour just described. A change in what I would call the "fœtal" blue is usually observable towards the sixth or eighth week after birth. I have seen it as early as the third or fourth week, but I think the cases were exceptional. If the eyes are destined to become "dark"—that is, hazel-brown or black,—a brownish hue overspreads the leaden blue, and, in the course of a few months, effaces it. The change being very gradual, its progress can be watched from week to week. During the period of change the eyes undergo such alterations of colour as may be expected from the mixing of brown in increasing proportions with a heavy blue. Some eyes appear to remain permanently of a colour that may be called "transitional"—transitional, that is, as regards the hazel-eyed. Such eyes are of the most varied and indescribable hues.

Eyes that ultimately become brightly blue, whether the shade be light or dark, gradually clear up as it were, like the sky after a thunderstorm, and a clear-tinted blue iris is the result. This may be called the "adult" blue. Eyes that become gray in after-life undergo a similar change. So far as my observations have extended, I have been led to the conclusion that the eyes of *all* newly-born children are blue, whether they be the offspring of light- or dark-skinned races. Nay more, I am inclined to think that all newly-born animals have blue eyes. Until recently I have been unable to find any record of such an observation as the foregoing (which I now venture to put forward as the result of much personal investigation, and after the examination of a large number of infants' eyes), but my valued

friend and former teacher, Dr. Sharpey, has kindly referred me to the following passage in the article "Die Physiologie in ihrer Anwendung auf Augenheilkunde," by Ructe in *Wagner's Handwörterbuch der Physiologie*, vol. iii., part 2, p. 325, 1846. Dr. Sharpey's translation is as follows:—

"In the new-born infant the pigment coating the uvea (posterior surface of the iris) is fully formed, whilst it is not yet present in the stroma of the iris, so that infants are born with blue eyes. Should no pigment be afterwards developed in the stroma the eyes remain blue, and only become lighter in proportion as the tissues of the iris lose their transparency. Should the pigment be scanty and scattered, the eyes become of a light grey-brown; should there be more, they become nut-brown, and finally deep dark-brown. Cases often occur where the pigment is confined chiefly to the border of the pupil, whilst the rest of the iris has little. Indeed, parti-coloured eyes are not uncommon."

The fact that the newly-born have eyes possessing invariably a blue colour may possibly prove of use in certain medico-legal investigations where the question of identity of infants is involved. Indeed, my knowledge of the subject of baby-farming, which happens to be special, assures me that at times it must be all-important. The Wicklow peerage case affords, I believe, an instance in point. And, under any circumstances, it is a matter of interest to obstetric practitioners and others. Any medical brother (especially if practising in tropical or other regions inhabited by dark-skinned races) who will kindly test my observation, by examining the eyes of newly-born children, can readily convince himself of its correctness, or the reverse; and in any case I shall be glad to hear the result.

Wimpole-street, Dec. 1870.

REVACCINATION AND ITS RESULTS.

By ROBERT BATHO,

STAFF ASSISTANT-SURGEON, IN MEDICAL CHARGE OF DEPÔT OF FOOT GUARDS.

At a time like the present, when small-pox is epidemic, and increasing numbers of cases are recorded every week, public attention is naturally directed to the means of lessening the frequency or the severity of the disease—namely, vaccination and revaccination. I shall confine my remarks to the latter subject, with the view of supplementing by a few facts the statements contained in the editorial remarks in THE LANCET of January 21st.

The necessity for the performance of revaccination has long been recognised by the military authorities, who require that all recruits on joining any branch of the service shall at once be subjected to it, unless a certificate be produced that the recruit has recently undergone the operation successfully. To this may, no doubt, in a measure, be attributed the comparative immunity of the army in the present outbreak. I do not know if the fact of belonging to the sect called the "Peculiar People" has ever been urged by a recruit as a plea for the remission of the operation in his instance, but I am quite certain it would not be entertained, revaccination being compulsory in her Majesty's service.

The recruits who have joined the depôt of the brigade of Foot Guards at Warley, Essex, during the year 1870 have amounted in number to 797. They consist of young men of ages varying from seventeen to twenty-six; and as they are derived from all parts of the United Kingdom, they may be assumed to be fit representatives of their age and class, and fairly to indicate the working of the Vaccination Act. From the records to which I have access, I find that of these 797 recruits, 75 (or 9·4 per cent.) had never been vaccinated at all prior to enlistment; whilst of the remainder, 693 showed perfect cicatrices of former vaccination, and 29 had suffered from small-pox. The fact that small-pox may, in exceptional cases, affect a man more than once is recognised by the army authorities; and the recruit, even if plainly marked by the disease, is subjected to vaccination on enlistment. I find therefore that of these 29, 8 instances of "perfect vesicle" resulted from revaccination; 7 were returned as "modified," and 14 (or less than half) as "failures." These results may, to some, appear surprising: they seem, however, to indicate (as expressed in the leader above mentioned) that the "immunity conferred by one attack of the disease is not absolute, but relative." Of the 693 men who had already perfect cicatrices and were revaccinated, 280 results were recorded as "perfect," 206 as "modified," and 204 as "failures": 3 results were unknown, the recruits having absented themselves without leave. Surely, with a percentage of only 29·4 of total failures, no argument to prove the necessity of revaccination can be required. During the year 1870 only one case of small-pox occurred at this depôt; and it is interesting to remark that, though the patient bore perfect marks of vaccination in childhood, revaccination failed when performed here.

For convenience of reference I have tabulated the above statements. (Table No. I.) I also subjoin a table (No. II.)

TABLE I.

	Totals.	Results of Revaccination.		
		Perfect Vesicles.	Modified Vesicles.	Failures.
Recruits bearing no marks of vaccination	75	68	7	0
Recruits bearing marks of small-pox	29	8	7	14
Recruits with perfect cicatrices of former vaccin.	693	280	206	204*
Totals	797	356	220	218

* Add 3, deserted.

TABLE II.

Source of Lymph.	Totals.	Results of Revaccination.		
		Perfect Vesicles.	Modified Vesicles.	Failures.
Directly from arm	190	134	24	32
From points (Vaccine Inst.)	387	189	87	111†
From tubes ,,	220	36	98	86
Totals	797	359	209	229

† Including 3 deserted.

showing the manner in which the revaccination was performed. From this it will be seen that of those vaccinated directly from arm to arm 70·5 per cent. of "perfect" results were obtained, whilst with points the percentage fell to 46·2, and with tubes to 16·3.

Warley, Jan. 27th, 1871.

ON A RAPID AND ACCURATE METHOD OF MILK ANALYSIS;

WITH SPECIAL REFERENCE TO THE EXAMINATION OF WOMAN'S MILK.

By JOHN MUTER, Ph.D.,

DIRECTOR OF THE SOUTH LONDON SCHOOL OF CHEMISTRY AND PHARMACY.

In entering upon this subject, it will not require any preliminary verbiage to show the necessity of keeping a watch on the composition of the nursing mother's milk. It has been often a matter of wonder to me that medical men did not avail themselves more frequently of the facilities offered by an analysis of the nurse's milk as an aid to the diagnosis of obscure cases of infantile disease, such as persistent diarrhœa, or continual loss of flesh without any visible cause. In such cases I have heard medical practitioners state their conviction that the milk was wrong; but when I asked them in what direction the fault existed, they were at a loss for a reply, and when I suggested an analysis they seemed inclined to think little of it, as they had never

before dreamt of employing such an aid to diagnosis. On going more deeply into the subject, I found that several great impediments existed to the general employment of analysis, such as the quantity required, and the tedious and not over-accurate process of milk-examination still in use. It was therefore clear that, to render chemistry a useful aid to medical science in this matter, we ought to have a process which would combine smallness of sample, rapidity, and fair accuracy.

After many trials in various directions, it was determined to base the analysis on the real dietetic value of the milk, as represented by a determination of its solid residue, and the estimation of its nitrogenous and carbonaceous constituents. Experience derived from the use of Dr. Frankland's elegant system of water analysis by combustion *in vacuo* led ultimately to the application of a similar principle to milk. The process, when used for cow's milk, requires several modifications, in view of possible admixture with certain extraneous matters; but as it is only with woman's milk that I have to do in the present paper, these additional precautions need not now be mentioned.

The process is conducted as follows:—A small paper filter is prepared which will contain 10 grammes of oxide of copper. It is filled with the oxide and placed in a small funnel. The whole is then exposed for an hour in an air bath, so constructed as to draw a continuous current of air at 105° C. through and around the funnel. The funnel and its contents are then cooled in the desiccator, and weighed with great care, and the weight having been noted, *five drops* of the milk are cautiously let fall on the centre of the oxide, taking care that no milk spreads to the filter paper. The whole arrangement is then weighed, and the quantity of milk used found by difference. The funnel and contents are then replaced in the air bath, and exposed to a temperature gradually increasing from 50° to 105° during several hours. When the milk has been thus dried it is again weighed at intervals until it ceases to lose weight. This loss of course shows the percentage of water, and, consequently, of the total solids. The contents of the filter are now transferred to a warm glass mortar, mixed with more oxide of copper, and introduced into a combustion tube. The tube is charged in the usual way, but the front part is filled through three and a half inches of its length with a roll of copper gauze previously ignited in hydrogen. The end of the combustion tube is then drawn out before the blow-pipe, and connected by an india-rubber and glycerine joint to the Sprengel air-pump. Heat is now applied to the front part of the tube, and, the air having been fully exhausted, the combustion is proceeded with, and the residual gases received into a tube over mercury. At the close of the combustion the gases are entirely transferred from the combustion to the receiving tube by the aid of the pump, and it only now remains to measure them in a manometric apparatus. For this purpose I employ the apparatus described by Mr. M'Leod in the Journal of the Chemical Society, and I find it to work most satisfactorily. The gases are first measured as a whole, and then separately absorbed by the usual reagents and measured after each absorption. We thus obtain the total volumes of carbon dioxide and nitrogen, evolved by the milk residue, and by a simple set of calculations we are enabled to deduce the actual weight of carbon and nitrogen contained in it, and consequently its exact value in nutriment. In one continued series of operations we therefore ascertain (1) the total solids, and (2) the amount of their flesh-forming and heat-producing constituents. When thus complete, the analysis would be expressed as follows:—

Example I.

Milk from E. S——, one month after confinement; child healthy.

Amount of milk taken, 0·24 grammes.
Total solids, 0·0264 = 11·00 per cent.
Organic nitrogen ... ... ·0014 = 0·5833 per cent.
„ carbon ... ... ·0167 = 6·5420 „
Therefore—

Water	89·00
Flesh-formers (casein)	3·71
Heat-producers (fat and sugar) ...	7·29
	100·00

This is a good specimen of well-balanced, healthy milk.

Example II.

A. B——; time after confinement not mentioned; child ailing; diarrhœa.

Water	87·69
Flesh-formers (casein)	0·91
Heat-producers (fat, &c.)	11·40
	100·00

A milk so poor in nitrogen as to be worthless for the due nourishment of the infant, while there is immense excess of sugar and fat.

Having thus laid this plan of analysis before the profession, it is for them to consider the clinical value of such examinations. It is not for me, as a chemist, to point out this further than to ask whether, by proper investigation into the properties of its mother's milk, the sick child might not often be saved by applying to her the remedies and, above all, the course of diet shadowed out by such analysis, or by at once altering the mode of feeding the infant altogether? There can never be any difficulty in procuring ten drops of the milk as a sample, and the whole analysis can be usually done in one day. Should these preliminary remarks attract the attention of any gentleman who has cases suitable for the process, I shall be glad to join him in extending the field of inquiry.

January, 1871.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

CASE OF SCALD OF THE GLOTTIS; REMARKS ON THE AVOIDANCE OF TRACHEOTOMY.

(Under the care of Mr. HUTCHINSON.)

CASES of scald of the glottis arising from attempts to drink out of a kettle are not very uncommon accidents in the practice of large hospitals. A case of such severity as to necessitate the performance of tracheotomy occurred recently at the London Hospital. The patient was a little boy aged three years, and the evidence given by his father was to the effect that the water was absolutely boiling at the time that the child attempted to drink. The dyspnœa on admission was very urgent, but for about twelve hours the operation was deferred, and it was attempted to reduce the œdema by causing the child to suck ice and drink iced milk. The dyspnœa, however, at length became such as to threaten almost immediate death; and Mr. Kibbler, the house-surgeon in charge of the case, decided on performing tracheotomy. Though great relief ensued, and on the following day the child breathed comfortably, yet it sank, and died about thirty-six hours after the operation.

The post-mortem showed large white patches on the pharynx and about the rima; the whole of the epiglottis had been scalded, and the greater part of its mucous membrane was shrivelled and seemed about to slough; the mucous membrane covering the arytenoid cartilages, and that within the larynx, was swollen; there was no evidence of scalding in the œsophagus or the stomach. The lungs were extensively congested, large portions of their posterior lobes being in the first stage of pneumonia. A good coloured sketch of the parts has been preserved.

In commenting on this case, Mr. Hutchinson stated that he quite approved of the practice which had been pursued in deferring the operation as long as possible. Urgent dyspnœa was a very common condition in the first instance after these accidents, and this in a great majority of cases would subside under ordinary treatment. If tracheotomy

were resorted to during the early stage of the dyspnœa, it might perhaps now and then obtain the credit of saving a patient who would have progressed very well without it; but, on the other hand, it might perhaps add new and not inconsiderable risks to his condition. Young children did not bear tracheotomy well, and the subjects of the accident in question were always young. Mr. Hutchinson believed that he had often seen the operation resorted to prematurely, and to the patient's hurt; and of late years he had systematically dissuaded his house-surgeons from performing it, excepting under very urgent circumstances. It was quite true, he said, that now and then a child would die from œdema of the glottis if tracheotomy were refused. The average of success would, however, he believed, be much greater in the hands of a surgeon who refrained from operating as long as possible, than in those of one who acted according to the opposite rule. The cases in which the operation appeared to be absolutely required were probably, like the one in point, of such severity as almost necessarily to end fatally; and it was not to be forgotten that, apart from the dyspnœa caused by swelling of the mucous membrane, the destruction of that tissue about the epiglottis and pharynx was likely, in itself, to be productive of a dangerous degree of constitutional irritation.

Mr. Hutchinson added that, on the other hand, he had known tracheotomy, performed (by Mr. Barrett) under very urgent circumstances, to save a life which would in all probability have otherwise been lost; and that in another case he had known a child, in whom it was attempted to avoid the operation, die with œdema of the glottis. The rule should be for the surgeon to remain with his patient, ready whenever the necessity might occur, and to watch very carefully the tendency of the symptoms.

KING'S COLLEGE HOSPITAL.

OPERATION TO COVER A PROTRUDING TESTIS; FAILURE; EXTIRPATION OF THE GLAND.

(Under the care of Mr. HENRY SMITH.)

ON a recent occasion Mr. Henry Smith operated on the following case of disease of the testis, which presented some features of interest. The patient was an unhealthy-looking man of forty, who denied ever having had any venereal complaint, but had on one leg a dark cicatrix which looked very much like the scar of a tertiary syphilitic sore. Two years previously he for the first time noticed an enlargement of the left testis, which continued to increase until a few months since, when an ulcer formed in the anterior part of the scrotum, in consequence of the skin having given way in that situation. Thus the patient was admitted with protrusion of an enlarged and exceedingly hard testis through an ulcerated opening of about the size of a crown-piece. The skin adjacent to the opening was also in an unhealthy condition.

In the course of a few days Mr. Smith made an attempt to cover the testicle by Syme's method of dissecting the skin from around so as to make a flap on either side; these were easily brought over the testis and united by hare-lip pins. In the course of forty-eight hours, however, the skin sloughed, and there occurred a much larger protrusion of the testis, which increased day by day until it became clear that there was no possibility of saving the gland; it was accordingly completely extirpated by the following modification of the usual operation. The testis having been cleared from the surrounding tissues, and the cord laid bare, the latter was compressed between the blades of a hæmorrhoidal clamp and then divided. The blades of the clamp were then slowly unscrewed, and as soon as the artery was seen to pump, it was secured with a ligature. The testis, on examination, was found to be extensively diseased; large tubercular masses of deposit, some of which were in a state of softening, were scattered here and there over the greater portion of the organ. It was quite clear that the gland could not have been saved.

Mr. Henry Smith drew attention to the circumstance of his having modified the operation by the use of his hæmorrhoidal clamp, at the suggestion of the house-surgeon, Mr. Rope, and said that he was glad to find that it had answered very well, preventing all but a very slight loss of blood. Of the failure of the first operation the condition of the testis was a complete explanation; and he hoped that the pupils would not, from the experience of that one case, be induced to conceive a prejudice against a proceeding which in other instances they had seen followed by excellent results.

UNIVERSITY COLLEGE HOSPITAL.

A CASE OF PERI-CÆCAL ABSCESS.

(Under the care of Sir H. THOMPSON and Mr. CHRISTOPHER HEATH.)

IN a previous number (Oct. 1st, 1870) we alluded to the case of a youth, about twenty years of age, in whom Mr. Heath, in the absence of Sir H. Thompson, had opened an abscess which was pointing between the anterior superior spine of the right ilium and the mesial line of the abdomen; and stated that the incision was followed by a copious and forcible stream of offensive pus, the withdrawal of a large shred of sloughing cellular tissue, and finally by an alarming flow of venous blood, which was only arrested by filling with lint soaked in perchloride of iron a large cavity which was found to exist beneath the situation of the incision.

The further progress of this patient was as follows:—During the night following the operation some fæces escaped from the wound. Two days afterwards the plugs of lint were removed, and the cavity was washed out with a solution of carbolic acid (1 in 40), and refilled with fresh plugs soaked in the same preparation. Notwithstanding the passage of a firm motion by the rectum, portions of fæcal matter continued to be discharged through the wound. On the fourth day the patient showed signs of increasing weakness, and complained of frequent faintness. The wound, which still gave passage to fæces, was dressed as before. On the fifth day he felt better. On the sixth the wound gaped widely, and some large sloughs were removed. The cavity presented a red granulating surface, and contained more sloughs. Fæces were passed daily by the rectum as well as by the wound. The cavity was directed to be washed daily with the carbolic solution. By the ninth day it was clear of sloughs, and, when it was not full of fæces, its surface could be seen to consist of granulations. On the eleventh day the patient appeared to be getting weak. He died exhausted on the twenty-second day, the fæcal discharge from the wound having recurred daily to the last.

At the post-mortem examination there was found, in the right iliac fossa, the sac of an abscess which was bounded on the outer side by the iliacus muscle and the iliac bone—the surface of which was bare within two inches from the crest,—on the inner side by the cæcum and some thickened peritoneum, and in front by the abdominal walls. The finger could be passed anteriorly into a sloughy cavity between the bladder and the pubes, and posteriorly between the rectum and the bladder. The pus had penetrated into the subperitoneal tissue, but had been arrested in its course towards the perineum by the recto-vesical fascia. The whole sac of the abscess and the surrounding parts were removed *en masse*, but a careful examination failed to discover the source of the hæmorrhage. In the inner wall of the abscess were situated two large openings which communicated with the cæcum, and through which prolapsed the mucous membrane of the gut, of a dark-red colour, each portion presenting very much the appearance of a prolapsus ani. On opening the intestine, no scars or other traces of recent ulceration could be seen. Beyond these openings the gut was contracted, but healthy. The small intestine was healthy.

CLINICAL RECORDS OF THE PARIS HOSPITALS.

LA PITIÉ.

CASES UNDER THE CARE OF M. BROCA.

(*Reported by* Mr. EDMUND B. OWEN.)

IN this hospital, as in many other similar institutions in Paris, one could hardly fail to notice the absence of a well-arranged system of ventilation. One of the wards for female patients on the ground-floor received its fresh sup-

plies of air through windows opening into a much-used drying-ground of about half an acre in extent, the galvanised iron wires, on which the clothes were hung, being attached by one end to the outside of the wall of the ward, on a level with the window-sills. Thus, when a gentle breeze blew in at the open windows, the whole of that side of the ward, which contained about fifty beds, was perceptibly pervaded by a damp smell of "washing-day." Again, in the garden, immediately under the window of an adjoining ward for male patients, a simple slate urinal had been erected for the use of convalescent patients, and the effluvium emanating from this, and from an adjoining corner of the building which had been used for a like purpose, impregnated the air in the neighbouring part of the ward with a strong ammoniacal odour.

Perhaps I may observe, while on this subject, that the superabundant "accommodation" which in this respect is afforded in Paris (urinals having been extemporised by the public in every possible situation where they are not already provided) must, in my opinion, contaminate the atmosphere, more especially of the small thoroughfares, in such a manner as to increase the rate of mortality from epidemic disease.

All the beds in La Pitié are hung with white curtains, and provided with spring mattresses. The latter may be a great source of comfort to many patients, but evidently are not suitable to those suffering from fractures of the bones of the lower extremity.

To guard against carrying infection from one open wound to another in performing the dressings, sponges have been replaced by charpie; but, notwithstanding this wise precaution, upwards of thirty deaths occurred from pyæmia in the male ward (St. Augustine) during the first four months of the present year. A thorough cleansing of the wards arrested the outbreak.

M. Broca employs india-rubber drainage-tubes in the treatment of phlegmonous erysipelas, deep-seated abscess, and scrofulous cervical glands which have passed on to suppuration. By means of these tubes he is also enabled, with a syringe, to inject carbolic acid in solution into the suppurating parts, thereby stimulating them to healthy action. M. Broca invariably dispenses with the scalpel, and employs, in its stead, the galvanic cautery or the écraseur, when the employment of either of these two last-named instruments is practicable; he does so, doubtless, on account of the mortality which occurs among patients with incised wound in the Paris hospitals. In one case he amputated a large malignant growth affecting the skin over the sacrum, by means of the galvanic cautery. During the cicatrisation of the wound, however, it became evident that the removal of the morbid tissues had not been completely effected. When I left Paris, at the end of July, M. Broca was contemplating a second operation upon the part, the patient still being in the hospital.

Amputation of Cervix Uteri.—On the 28th of May, M. Broca discharged as cured a married woman, thirty years of age, from whom, three weeks previously, he had removed the cervix uteri by means of the écraseur. The patient stated that ever since the birth of her last child, which had occurred two years previously, she had been subject to an almost continuous escape of blood from the vagina. Examination by means of the speculum showed that the cervix uteri was invaded by a spongy growth from which blood was at the time oozing. Some difficulty was at first experienced in adjusting the loop of the écraseur over the diseased part. This difficulty, however, being overcome, the separation was easily effected, occupying about half an hour in its performance. During the process of cicatrisation, the opening into the uterus did not become occluded.

Fracture of the Patella.—On the 13th of May a compositor was admitted with a transverse fracture of the left patella. Two pieces of gutta-percha, of about the size of one's hand, were softened in hot water, and then moulded over the two fragments. When hardened they were bandaged in position, and Malgaigne's hooks were inserted into *them*; the pieces of gutta-percha, with the subjacent fragments of bone, were then approximated by tightening the screw. The apparatus was finally removed on the 4th of July, when it was found that there was an interval of a third of an inch between the fragments, and very considerable movement; the leg and knee were, therefore, enclosed in a "silicate" bandage, and the patient was discharged shortly afterwards. In applying the hooks in the manner described above, M. Broca certainly avoided puncturing the integument and bone; but, I think, could not depend upon obtaining that nice adaptation of the edges of the fragments which is sought for and effected in the ordinary way of applying the hooks. Should there have been any synovitis in the knee-joint on his admission, he could not have borne the pressure which had to be maintained by bandages to keep the gutta-percha in close contact with the fragments of the patella; or, what is worse, should inflammation of the membrane have ensued after the application of the apparatus, it must necessarily have been removed, at least for a time.

Aneurism of the Common Femoral Artery treated by Digital Pressure.—In July of last year J. B——, a syphilitic mason, thirty-six years of age, was admitted under M. Broca, suffering from an aneurism of the common femoral artery of the right side, the commencement of which he had first noticed about a year previously; he had also an extensive varix of the internal saphenous vein of the same side. Digital pressure was applied to the arterial trunk, where it passes over the ramus of the pubes, during twenty-six hours, and at the end of that time pulsation in the aneurismal tumour had disappeared. A short time after this he was discharged as cured.

I saw the patient on the 21st of May last, at which date he had been admitted for a varicose ulcer of the right leg. The remains of the old aneurism were very evident to the touch at about an inch below Poupart's ligament. In the neighbourhood were several enlarged inguinal glands; but a marked difference to the feel was manifest between these and the obliterated sac. It seemed pretty clear, at first sight, that the varix was due to the retardation of the flow of blood through the saphenous vein consequent on the pressure exerted by the sac upon the common femoral vein; and should this idea have been conceived, it would have been strengthened on observing that the right saphenous vein *only* was dilated, and that the left was perfectly healthy. But if this were really the explanation of the case, why should not the varix have decreased in size after the removal of the aneurismal pressure? The answer is simple: the existence of a pathological condition of the coats of these two vessels, thus anatomically connected, was merely a remarkable coincidence, for the patient had had the varix from his childhood. The ulcer was treated by rest and poultices.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 17TH, 1871.

J. HILTON, ESQ., F.R.S., PRESIDENT, IN THE CHAIR.

THE first specimen exhibited was one of Comminuted Fracture of the Skull, illustrating how much injury might be inflicted without any external lesion. The patient was knocked down and received a blow on the skull. He was admitted into hospital in an unconscious state, with bleeding from the nose and discharge of serous fluid from the ear. He rallied, and got much better, eventually relapsing into coma, and dying. At the post-mortem there was found an extensive comminuted fracture of the petrous portion of the temporal bone.

Mr. J. ADAMS exhibited a specimen of Fracture of the Head of the Radius, from a man who had received a number of injuries in consequence of his falling from a great height. The fracture of the radius was the sole injury about the elbow-joint, and Mr. Adams detected its nature during life, though the head of the bone rotated somewhat with the shaft of the bone. The localisation of the crepitus, &c., enabled the diagnosis to be made. The exact mode in which the fracture was produced was undeterminable.

Dr. CRISP showed a specimen of Ulcer of the Stomach which had opened into one of the arteries, and had given rise to fatal hæmorrhage. The ulcer was situate at the middle of the floor of the stomach.

Mr. CURLING mentioned that similar occurrences are not uncommon in connexion with ulceration of the duodenum following burns.

Dr. POWELL did not imagine that in these cases there was any primary disease of the coats of the vessels; but, as in the case of the lungs, ulceration simply involved the vessels in common with other tissues.

Dr. CRISP likewise exhibited a specimen of Stricture of the Œsophagus in a woman, from cancerous disease, which involved the base of the tongue, and the lymphatic glands at the base of the neck. The direction of the œsophagus and trachea was altered. The specimen was referred to the Morbid Growths Committee for report.

Mr. WAGSTAFFE exhibited a specimen of Cystic Sarcoma of the Lower Jaw, removed from a patient by Mr. Le Gros Clark, at St. Thomas's Hospital. The tumour involved the angle of the jaw, and distended the bone from just below the condyle to near the symphysis on the left side. The structure was cystic, with a firm sarcomatous matrix, and the features of particular interest were the existence of numerous small endogenous cysts in the interior of the larger cysts, these endogenous growths occurring in the epithelial lining, and being very readily isolable; and, next, the peculiar arrangement of the sarcomatous growth in cylinders or acini, running through a fibro-nucleated matrix.

Dr. DOUGLAS POWELL read a report on certain peculiar Sputa, sent to the Society by Dr. Whitehead, of Manchester, and expectorated by patients suffering from mucous disease which he had lately described. The sputa were obtained from a woman of leuco-phlegmatic temperament, aged twenty-four, whose appetite was voracious, and who had suffered from dyspnœa and constant rising into the throat of masses of mucus since the age of seven, and who "hawked" from time to time peculiar sputa which seemed to come up to the throat involuntarily, and consisted of pieces three inches long, thicker at one end than the other, greyish-black in colour, and in size generally about that of a cedar pencil, composed moreover of a homogeneous substance intermingled with epithelial matter. Dr. Powell reported that the sputa were made up of stratified epithelial cells, with a fibrillated substance containing mucous corpuscles, and without any sign of threads of mucous or bronchial tissue. The sputa seemed to be furnished as the result of a catarrh of the pharynx and upper part of the œsophagus.

Dr. PAYNE exhibited two interesting specimens illustrative of the production of Pyæmia from the entrance of pus direct into the veins. In the one case the pus entered from a scrofulous abscess into the veins of the neck at the junction of the innominate, there being a distinct opening from the abscess into the venous system at this point. The specimen illustrating this condition was taken from a patient admitted into St. Mary's with symptoms of pyæmia, and, in addition to the presence, post mortem, of a scrofulous abscess behind the innominate veins, there were similar abscesses in the lungs. In the second case, which was sent into hospital with supposed rheumatism, the lesion was in the longitudinal sinus of the dura mater, there being a softened mass on one side, and a small vein coming from the surface of the brain entered it, whilst the dura mater was also the seat of a false membrane. It was supposed that foreign matter entered the circulation through the longitudinal sinus. Dr. Payne referred to the various modes in which pyæmia might be produced, and notably by the entrance of pus or finely granular matter, such as is found in "scrofulous abscess," into the circulation, as in the two instances in question.

Mr. BARWELL said, in Dr. Payne's first case there was no true abscess, but only the granular débris formed in so-called scrofulous abscesses; thus it could scarcely be said to be a case of pyæmia from the entrance of pus into the system. And if the abscess were empty, or nearly so, and it was clear that it had been in its present condition some time, why were there no bad symptoms when the abscess first emptied itself into the veins? He further wished to know how it was that the fine granular matter from the abscess was not arrested in the lung, and yet was stopped in the joints.

Dr. MURCHISON said he imagined scarcely any pathologist maintained now that pyæmia was the result of the entrance of pus into the blood. Dr. Payne's cases were very valuable as bearing upon the atmospheric germ theory, as they afforded distinct negative evidence against its truth.

Dr. PAYNE referred, in answer to Mr. Barwell, to Wagner's experiments, in which fine powder injected into the circulation escaped arrest in the lungs, but not in other parts.

Dr. PAYNE likewise exhibited a specimen in which a number of cysts, like bunches of grapes, or uterine hydatids, studded the peritoneum about the ileum and the mesentery. He thought that the air came to the stomach through an ulceration which there existed. The air, on being analysed, was deficient in oxygen.

Dr. BROADBENT exhibited specimens illustrating purpura hæmorrhagica occurring in connexion with scarlatina in the skin, intestines, pharynx, throat, and the walls of the heart.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JAN. 27TH, 1871.

DR. W. W. GULL, PRESIDENT, IN THE CHAIR.

THE PRESIDENT delivered an inaugural address to a large number of members, which was published in THE LANCET of last week.

Dr. SILVER read an Account of certain Cases of Rheumatism treated with Veratrum Viride. The drug was given in two-minim doses every hour, ten-minim doses causing sickness and pain in the epigastrium. Its effects were noted chiefly with regard to two particulars: reduction of temperature, and diminution of pain. The temperature charts were laid before the meeting, and the author was of opinion that they testified to an abatement of bodily heat as soon as the drug-influence had time to manifest itself; but the cases being only six in number, and his opportunities for further observations being meanwhile in abeyance, he fortified his position by the experience of Biermer, who had used the drug largely in the treatment of croupous pneumonia, and in whose hands it had acted powerfully in inducing defervescence. In the cases recorded a speedy diminution, in certain of them a complete abolition, of pain was brought about within forty-eight hours of giving the drug. As to the other objects to be aimed at in treating acute rheumatism, specially the removal of any *materies morbi* from the system, the facts recorded did not enable the author to speak; only with its use the urine speedily became clear. As to the obviation of heart-complications, it was pointed out that these depended rather on the period of the disease than the withholding of any special mode of treatment, patients ordinarily giving evidence of the complication during the first week of the disease, or at the period of relapse. For reasons hinted at above, the paper could only be considered as a fragment, but might be useful to those who cared to pursue the subject further.

Dr. CLAPTON remarked that he had experienced great difficulty in inducing the stomach to tolerate the drug. It was well known that the North American Indians, in the selection of their chiefs, adopted the veratrum test, and chose the man who could take most of the drug with impunity. But, according to the speaker's experience, it was necessary to make a combination with opium, or some other sedative, and then, of course, we could not judge fairly of therapeutical effects.

Dr. MURCHISON had employed the drug experimentally in pyrexia, and entirely subscribed to Dr. Silver's remarks as to the evident effect produced on pulse and temperature, having found that in scarlet fever, pneumonia, and typhus such was most markedly the case. He did not, however, think that it shortened the duration of disease, and had not adopted it because, as it appeared, symptoms approaching to syncope were often produced, with no irritation of the stomach, but sufficiently severe to require the use of stimulants. He hoped, however, that veratrum would receive, as it deserved, further attention.

Dr. THOROWGOOD hoped to have heard something about aconite as compared with veratrum, particularly in preventing the occurrence of pericarditis.

Mr. BRUDENELL CARTER wished to know if any exact notes as to the frequency and force of the pulse had been taken at, say, about half an hour after the administration of the drug, and, if any change occurred, how long it lasted.

The PRESIDENT asked if any failures occurred, and if so, in what particulars as to pulse, temperature, or any other symptom.

Mr. KESTEVEN remarked that, in veterinary practice, a

decrease of temperature always followed the administration of any drug to horses.

Dr. C. T. WILLIAMS asked if veratrum produced any effect in these cases on the urine or the bowels.

After some brief remarks from Mr. Barwell on the treatment of inflamed joints; in reply to the President,

Dr. SILVER said these were all cases treated as in-patients, but that he had seen the most marked effects as to the success or failure of the drug among out-patients. He was glad to have the support of so excellent an authority as Dr. Murchison as to the effect of veratrum in reducing temperature. He could give no information to Dr. Thorowgood as to the relative value of aconite and veratrum. From the exceedingly small doses given there was at first no derangement of stomach, and no direct effects on the pulse, both becoming gradually affected. The only exact information as to the secretions was gleaned from America, where it appears that in some cases treated the urine was notably increased by it. The author added that since writing the paper he had found that the veratrum had been used for acute rheumatism in Trousseau's wards, and was greatly commended by Bouchut. Arran had also confirmed its very remarkable powers in lowering the temperature, the pulse, and respiration. From the physiological inquiries of Kölliker and Pelikan it seemed probable that veratrum acted primarily and directly upon the heart, but he had rested his views on its remedial action alone. The author greatly regretted that the number of cases at his disposal had not permitted him to contribute more than a fragment to the history of the drug.

Mr. TEEVAN briefly related the particulars of four cases of unusually large calculi, and stated that there were four points of interest:—(1) that the calculi were large; (2) that the method adopted for their extraction was not in accordance with the rules laid down and accepted by surgeons; (3) that the patients recovered; and (4) that there was no incontinence of urine in any case. Surgeons usually extracted calculi by means of a limited internal incision, and a subsequent so-called process of dilatation, which was in reality complete rupture of the prostate and its capsule. This method was opposed to the teachings of anatomy, and was usually followed by one of three bad results,—death, impotence, or incontinence of urine. If, on the contrary, a free incision be made into the bladder, the rate of mortality will be lessened, and such sequences as impotence or incontinence of urine be abolished. One of the reasons which deterred surgeons from making a free internal incision was the fear of infiltration of urine. Now such an event, after lithotomy, was a physical impossibility. Infiltration of urine could only occur when the fluid was pent up and was unable to escape. After lithotomy the urine passed freely either by the wound or per urethram. Now, as there was no danger of infiltration of urine from making a free incision, and as the extraction of a calculus without the rupture or incision of the prostate was not possible, it followed that it was preferable to extract a stone by cutting it out rather than by tearing. Mr. Teevan stated that after he had, with the forceps, grasped the calculus, he was in the habit of introducing a probe-pointed bistoury, and cutting downwards and outwards sufficiently freely to enable the stone to glide out of the bladder without the slightest traction being exerted. He brought forward the above cases to show that the method was unattended with danger, and that the patients were in all respects better off by being treated with free internal incisions rather than by indefinite lacerations of important structures.

Mr. DE MORGAN thought it desirable to make a free opening into the prostate, though the plan of making multiple incisions might be useful in the case of a very large stone. With ordinary calculi he had never found any evils arise from moderate section with dilatation of the gland.

Mr. TEEVAN explained that the incisions were made after the stone was grasped; that there was no such thing as dilatation of the prostate, that it was an impossibility, and that he had the authority of Mr. Ellis for this assertion; that the museum of St. Thomas's Hospital showed cases in which laceration had extended to the orifice of the left ureter, indicating that the calculus was really torn out.

After some brief explanations by Mr. De Morgan,

Mr. BARWELL said he believed that in most cases it was the surgeon's idea and endeavour to avoid cutting completely through the capsule of the prostate, and so introducing urine into the recto-vesical pouch, as any such case must be treated as one of extravasation of urine. He did not understand how Mr. Teevan's incisions were produced, and believed that the prostate might be sufficiently dilated without being torn.

Mr. TEEVAN, in reply, said that, according to his own belief, no one can tell when the prostate is really divided, that there is no such thing as infiltration of urine after lithotomy; that he did not make a large external incision, but enlarged the internal; that the capsule was not, perhaps, completely divided in all cases, but that the most successful cases were those of children, when we could not possibly tell much about the prostate. Liston used to say that he practised dilatation in removing calculi, but Ellis has recorded that in all Liston's fatal cases the capsule was distinctly lacerated. He would further remark that, if there be no stricture of the urethra, inasmuch as the wound became coated with lymph a few hours after the operation, the urine would flow through the natural channel, and there could be no risk of extravasation.

Reviews and Notices of Books.

A Manual of Zoology for the Use of Students. With a general Introduction on the Principles of Zoology. By HENRY ALLEYNE NICHOLSON, M.D., D.Sc., M.A., &c., Lecturer on Natural History in the Medical School of Edinburgh. 8vo, pp. 620. W. Blackwood and Sons, Edinburgh and London. 1870.

WE have already favourably noticed in these pages the first part of Dr. Nicholson's work, which embraced the invertebrata, and we are glad to see he has now, by giving the vertebrata, completed his zoological survey of the animal kingdom. We have carefully read the latter half of the book, and are satisfied that it gives a very sound *résumé* of the principal facts of zoology. Here and there we think alterations and improvements might be made, notably in the case of the bones of the shoulder-girdle in fish, where the obsolete nomenclature of the bones given by Professor Owen is retained, whilst that of Mr. Parker is merely alluded to. Even were the determinations of the last-named observer doubtful, the immense amount of original research he has bestowed on the subject would have rendered it necessary to place them beside those of Professor Owen; but inasmuch as they are now very generally admitted to be based on most careful embryological investigation, they might well have received fuller notice at the hands of Dr. Nicholson.

The descriptions given of the several orders and classes, though containing nothing new, are yet very succinctly and clearly given, and furnish a large amount of information which, if thoroughly mastered by the student, will supply him with all the more important facts bearing on classification, and a by no means inconsiderable store of knowledge in regard to the structure of the animal kingdom generally. A very useful feature of the work is the short section, appended to each class, devoted to its geological history and distribution in order of time.

We would venture to suggest to Dr. Nicholson that in a future edition, which we have no doubt will form a much larger book than the present (the difficulty, indeed, being to compress what is known into moderate compass), he might introduce a series of woodcuts, showing the principal varieties of the several bones in the chief types of the mammalia, as has been adopted by Mr. Flower in his admirable new arrangement of specimens in the College of Surgeons, and which would be of much greater value than such a comparative sketch as that, for instance, given in Fig. 197.

There is a capital glossary and a good index to the book. Upon the whole, we may congratulate Dr. Nicholson on

having achieved a decided success in his first essay. He has produced a much-needed book in a very difficult department of literature, and we have much pleasure in recommending its perusal to those students who have not, as well as to those who have, some of the higher examinations in view.

Select Letters of Pliny the Younger. Latin Text, with English Notes. Edited by A. J. CHURCH, M.A., of Lincoln College, Oxford, and W. J. BRODRIBB, M.A., late Fellow of St. John's College, Cambridge. London: Longmans. 1871.

THIS is a scholarly and most useful edition of a classic too much neglected, we fear, by members of all professions. The text is based on Keil's recension; while Doering and Gierig are laid under constant "requisitions" for its elucidation. The archæological and historical notes have been prepared with judgment, and, on the whole, the verbal criticism is sound. We have made a few jottings, however, which we respectfully submit to the editors' consideration.

P. 169. "The phrase 'commodior valetudo' occurs in Celsus, viii. 1." True; but why not cite the more classical authority of Cæsar, B. C., 3, 62, 4,—"valetudine minus commoda utebatur"?

P. 172, 19. "Stomacho—the windpipe." If it means "windpipe" here (of which we are doubtful), it seems in Cicero N. D. quoted to mean the gullet, the œsophagus. The name of the windpipe with the Roman physicians was aspera arteria. See Cicero, N. D., 2, 34, 136; Celsus, 4, 1, 14, &c.,—"arteria ad pulmonem, stomachus ad ventriculum fertur: illa spiritum, hic cibum, recipit." Can anything be plainer? Pliny applies "æstuans" to "stomachus," in allusion to its antiperistaltic action—its physiological condition under the circumstances, as is further borne out by the epithet "angustus" = "drawn together." Messrs. Church and Brodribb are wrong, we think, in rendering "æstuans" "inflamed." But see Celsus, 3, 19, "Quod si stomachus," &c.

P. 173, 14. "Quiritatus—the monotonous cry of infants"; rather, we should say, the repeated, intense cry.

P. 232, 1. "Infirmitas," in the sense of infirmity, "only post-Augustan." But what says Cic. Fam., 7, 1, 1? "Dolor corporis aut infirmitas valetudinis." The editors are rather fond of stigmatising as "post-Augustan" expressions which occur (among other Augustan writers) in Livy.

P. 238. Heliocaminus, "a hybrid word," say the editors. Not so. Both parts are of the pure breed; though the union may be late. "Cryptoporticus" is no parallel.

We had marked other passages in which we differ from the editors; but THE LANCET does not profess to deal with the pathology of speech. Indeed, we have ventured to make the above criticisms, not so much to display scholarship as to certify our competency to pronounce the book to be, on the whole, ably edited, in all respects worthy of the translators of Tacitus, and of the contributors to that exquisite little volume—the "Horæ Tennysonianæ."

The Change of Life in Health and Disease: a Practical Treatise on the Nervous and other Affections incidental to Women at the Decline of Life. By EDWARD JOHN TILT, M.D., Senior Physician to the Farringdon General Dispensary and Lying-in Charity. Third Edition. London: J. and A. Churchill. 1870.

THIRD editions require little further notice at the hand of reviewers than that of additions and changes of opinion. The noticeable changes in this edition of Dr. Tilt's book are to be seen in those parts of the volume which treat of diseases of the reproductive organs at the change of life, and those in which the effects of this critical period on the nervous system, especially the ganglionic system, are described. Dr. Tilt naturally finds a powerful help to the explanation of the morbid phenomena of women at critical periods, which, as a clinical observer, he has watched more closely than most men, in the discoveries of Claude Bernard, Brown-Séquard, and others; and, unlike many men of his clinical experience, he is not above receiving and using the researches of physiologists. Dr. Tilt himself, indeed, makes many valuable contributions to the physiology of the subject of which he treats in the tables which form such a striking feature of his book, showing the ages of change, and the comparative frequency of the usual symptoms of it.

The work is rich in personal experience and observation, as well as in ready and sensible reflection on the experience and observation of others. Some of the views advanced, both in physiology and pathology, may have to be modified, and so, too, may some of the therapeutical views; but the book is one that no practitioner should be without, as the best we have on a class of diseases that makes a constant demand upon our care, and requires very judicious management on the part of the practitioner.

The Deformities of the Human Body: a System of Orthopædic Surgery. Being a Course of Lectures delivered at St. George's Hospital. By BERNARD E. BRODHURST, F.R.C.S., Surgeon to the Orthopædic Department, &c. 8vo, pp. 259. London: Churchill. 1871.

THE lectures on Deformities, here presented to the profession in a connected shape, were originally published in THE LANCET. In their new form they are illustrated by eighty-two well-executed woodcuts, and enriched by reference to every thing that has been learnt concerning deformities since the date of their original publication—as, for instance, the disputed mode of union of divided tendons (the author disagreeing with Mr. Adams), and the method of treating cicatrices by skin transplantation. Mr. Brodhurst divides the maladies on which he writes into three classes—"Deformities of the Limbs," "Affections of the Joints," and "Deformities of the Trunk and Neck"; and under each of these headings he has stated the principles of pathology and the chief means of treatment with much perspicuity and conciseness. The cure of fibrous anchylosis by forcible flexion, a method that the author has greatly made his own, is especially well described. Mr. Brodhurst ought to be competent to speak on the subject of false anchylosis; for he says that he has performed 260 operations of rupturing the adhesions without any *contretemps*. The book as a whole is entirely free from the obscurity and complexity for which many earlier treatises on the same subject were remarkable; and it cannot fail to be highly acceptable to the profession.

Notes on Transplantation or Engrafting of Skin. By JOHN WOODMAN, F.R.C.S. (Exam.), Honorary Surgeon to the Exeter Dispensary and the Diocesan Training College, &c. &c. London: J. and A. Churchill. 1871.

THESE Notes are published by the author in consequence of his conceiving that his experience might be useful to some of his brethren, especially those holding workhouse and other Poor-law appointments. We need say nothing about the history of the discovery, in France, of the process of skin-transplantation for the healing of ulcers and wounds, or of its introduction into England by Mr. George Pollock, of St. George's Hospital. Mr. Woodman describes eight cases in all; and he considers that transplantation of skin is of very great assistance in meeting two requirements in the treatment of ulcers—namely, rapidity and permanency of cure. The superiority of the process as regards the latter point is, he thinks, due to the greater elasticity of the skin which grows around each graft than is present in the less

highly organised plastic material of an ordinary cicatrix. He has always taken the whole skin for grafting, and abstains from pronouncing any opinion on Mr. Fiddes's plan of using epithelial scales only. It is absolutely necessary that the ulcerated surface should be covered with more or less healthy granulations; and it is important, though perhaps not essential to success, that the patient should remain in bed for at least a few days.

Here is a concise account of the author's *modus operandi*: Flex the arm, then pinch up a small piece of integument with an ordinary pair of forceps, and cut out the piece with either a sharp scalpel or, better still, with a sharp pair of curved scissors. (The author finds the inner side of the arm, about two inches above the elbow, the most convenient spot.) The piece taken out should be about the size of a big pea. This may now be divided, either on the nail, or in any other way, into two, three, four, or even five parts. Make an incision into the surface of the ulcer, or incisions, as may be needed; wait until the bleeding has quite stopped, then put each piece into one of the incisions, taking care to lay the cut surface downwards; then cover it with a piece of Professor Lister's non-adhesive lac plaster. A small piece about an inch square is what is generally placed over the spot. Keep this *in situ* with a strap or straps of ordinary adhesive plaster, then a little cotton-wool and a bandage, so as to cause steady pressure. Let the dressing be left untouched for from three to five days, the longer time in many cases being the best. The cotton-wool and the bandage can, however, be removed earlier. Before pronouncing a failure, wait some days, or a week at the outside. After about ten to twelve days a bluish-white point or points will be seen, arising at the spots where the skin was placed. They daily increase until, if planted sufficiently close, they will meet the edges, and the wound or ulcer is healed.

We have no space to discuss several points of physiological interest that are alluded to; but we may say that Mr. Woodman's notes form a good, practical, unpretending little pamphlet.

PIROGOFF ON SOME POINTS CONNECTED WITH THE WAR.

THE Russian military surgeon, Pirogoff, of Sebastopol renown, has lately published some observations in the *Journal de St. Petersbourg*, in which he recounts the results of his experience during the present war. The French wounded, he says, up to a certain point, were placed under somewhat analogous conditions to those at Sebastopol. At Strasbourg the operations did well when the operations were effected immediately after the wounds, whilst in Germany they did not attain to a tenth of these results. Resections of the foot, which were numerous, were very satisfactory; those of the knee were less numerous, and followed, as might be supposed, by very inferior results. Except at Strasbourg, Pirogoff appears to have seen very few wounded that had been struck by large projectiles. There were equally few cases of injuries of the head, and he saw only one example of wound by mitrailleuse. The subjects of these injuries commonly perish on the field of battle. The injury caused by the chassepôt is less grave than that by the minié-ball. Chest wounds, where the ribs were not involved in the damage, were often cured. He thinks that limbs have been preserved by conservative surgery which would have been sacrificed in former times. Experience since the Crimean War has demonstrated the bad results of thigh and leg amputations—a mortality of from 60 to 90 per cent., or 75 per cent. at the least. Pirogoff advocates a simple and expectant treatment in the case of gunshot fractures of the femur, and he says that such treatment frequently gave good results in cases where a fatal issue has followed the practice of amputation of the thigh. He attributes the success of expectant treatment to the better transport employed, notwithstanding its many defects, to the greater use of fixed immovable bandages, to the greater care and skill of the surgeons in attending to the position of injured limbs, &c., and to the improved system of hygiene in force.

One of the points on which Pirogoff especially dwells is well deserving of attention. According to the Russian system, medical officers go to the front under fire with their men. Advancement and honour attend on a military and not a medical career. Since the commencement of the war seven medical officers have been killed and fifty wounded. The Prussian regulations led to great difficulties in getting medical aid for the wounded. At first, in the German army, not more than ten or twelve important operations were performed on the field of battle, and the wounded did not receive help until they had been conveyed to some distance. After Gravelotte, 10,000 wounded men were conveyed away in country carts, journeying two days and nights without proper surgical help or dressings, and an utterly inadequate number of medical officers to attend on them. Professor Langenbeck had some 3000 wounded brought to him. He was aided by only two assistants. Military ardour is not by any means confined to the Prussian medical service. English surgeons accompany their regiments into action, and, to their credit be it said, do not shirk exposure to danger. Still, there can be no doubt that a doctor's duty is with the men who have been wounded. There is quite sufficient desire to be "well in to the front" without encouraging it in any way.

Pirogoff declares that the organisation of societies for aid to the wounded must be made in time of peace, and not in time of war. England, America, and Holland managed to place hospitals, already organised, at the service of the wounded, accompanied by a full complement of doctors, sick attendants, necessary *matériel*, &c. He considers that the great aim should be to organise hospitals capable of easy and speedy removal, and he speaks highly of third and fourth class waggons, with pharmacy and *cuisine*, capable of holding twelve or sixteen persons in each. Pirogoff considers that the huts so commonly erected and utilised in Germany for hospital purposes labour under several disadvantages, such as their being fixed, and their light construction rendering them useless for winter and autumn. In the summer tents could be employed. The ventilation in huts is insufficient to preserve the inmates against hospital contagion, as has been demonstrated at Berlin. It ought to be remembered, however, that the huts employed in the war were generally overcrowded. Pirogoff is opposed to large hospitals, but the Russian administration nevertheless continues to construct these of two or three stories. They are difficult of ventilation, and the results obtained in them are unsatisfactory. Single-storied hospitals, with large area for patients, or huts, are to be recommended in preference.

Pirogoff, on the whole, seems to prefer a very cheap style of hut, that may be entirely adapted to a country so cold as Russia, for instance. They are constructed of the trunks of trees disposed wide apart, with a double coating, outside and in, of clay and chopped straw for the walls. They are thus well defended from cold, and very comfortable, as Pirogoff testifies from personal experience. This will remind military readers of the native huts in India. They would not, in our opinion, prove healthy for hospital purposes in temperate regions.

We have, it is to be feared, exhausted our readers' patience, but not by any means all the points contained in Professor Pirogoff's papers. He considers that the chief object of aid societies should be to acquire hospitals in time of peace such as should be easy of transport by rail. He shows how important it is, too, to settle all about the position and discipline of members of volunteer aid societies; in other words, how to adapt private assistance to official medical administration.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 11, 1871.

THE Annual Medical Report of the Small-pox and Vaccination Hospital, which will be found in full in another part of our present impression, has a very unusual interest and importance at this time. It is true that the very extent of the existing epidemic of small-pox—now and for some months past exceeding that of any in the memory of the present generation—deprives the numbers of the cases in the hospital of their usual significance. The hospital has been so crowded that, during the months of October, November, and December, large numbers of applicants have of necessity been refused admission. The same is true of the other and recently extemporised special hospitals for small-pox: they are full, and there is an end of that criterion of the amount of the disease. But we are not without further data. Dr. BRIDGES last week supplied the Metropolitan Sick Asylums Board with particulars which showed the enormous and still increasing number of cases that are being treated in the houses of the poor in receipt of parish relief. In the week ending Jan. 21st there were 832 such cases; the following week there were 1010, or nearly 200 more cases. The week ending the 21st was that in which 188 persons died. The next week the deaths registered had fallen to 157, although, as we have said, the number of cases under treatment among the poor had risen from 832 to 1010. In the week ending Feb. 4th, the appalling number of 196 deaths from small-pox occurred.

It is common to associate the origin of this epidemic with the arrival in England of a great number of people from Paris and other parts of France, where the disease has been for some time frightfully prevalent. But the figures supplied by the medical officers of the Small-pox Hospital show that the epidemic began to have very large proportions before the beginning of the Franco-Prussian war, which drove so many from France to England. Dr. MUNK and Mr. MARSON consider that the epidemic may be regarded as having commenced in November, 1869. They give instructive figures as to its growth from August, 1869, when the number of admissions was 28—the minimum of admissions for that year. Taking their figures as a standard, and dividing them into periods of three months, up to October, 1870, we have the following numbers of admissions occurring in successive quarters: 93, 182, 222, 337, 341. In the last two months of the year 1870 the admissions were 337, or nearly as many as in the previous three months. The question occurs to us,—if the wards were so crowded in October as to necessitate the refusal of applicants for admission, and yet the number of admissions in the last two months of the year was as great as in the previous three months, how was the accommodation secured? We can only explain this by presuming that the average duration of the stay of patients has been shortened, and we know that the able officers of this hospital have never been charged with keeping their patients in too long. Mrs. GLADSTONE has shown the acuteness of true humanity in undertaking an attempt to procure convalescent accommodation for those who are too well to be kept longer in hospital, and too well marked by traces of recent small-pox to be objects of complacency to those about them, who are not supposed to know so much about this matter as the member for Westminster, who informed the Metropolitan Sick Asylums Board, with a most pleasant dogmatism, that there was no danger of infection in persons who were *returning from* a hospital. With all deference to the authority of Mr. SMITH, we must continue to be more than doubtful upon this point, and to think that the danger of infection depends, not upon whether a patient is going to or from a hospital, but upon the stage of the disease. It is monstrous to aver that patients can be free from the power of infecting after spending eight or ten days in the Small-pox Hospital; and even the longer period of twenty-three days which is allowed to vaccinated patients at Hampstead is short enough to be at all safe. A case in point is reported in Holborn. Small-pox was propagated in a court in that district by a patient who had been discharged from Highgate after fourteen days' retention in the hospital. He was found by the medical officer of health running about, and several cases of small-pox followed.

Our readers will do well to study the illustrations of the mortality and malignancy of the present epidemic given by the medical officers of the Small-pox Hospital and of the metropolitan sick asylums, who concur in remarking upon the malignancy of this epidemic. In the Small-pox Hospital the cases occurring in vaccinated persons were fatal in the proportion of 7·9 per cent.; the cases occurring in the unvaccinated were fatal in the proportion of 38·5 per cent. At Hampstead the mortality of the unvaccinated has been 43 per cent.; while that of the vaccinated has been 7. The general mortality for the year was 15·4 per cent. This high mortality is attributed to two causes: first, the unusual severity or malignancy of the disease; and, secondly, the great number of children, for the most part unprotected by vaccination, who have been received into the hospital. In 1860, 7·37 per cent. only of the whole admissions were children under ten years of age; and the mortality was 33·8 per cent. In 1870, more than 16 per cent. of the whole admissions were children under ten years of age; and the mortality amongst those of them unvaccinated was as high as 42 per cent.

These figures suggest the explanation of both the extent and mortality of the epidemic. There is no mystery about the matter. Defective vaccination or no vaccination at all is the explanation. There are 6 per cent. more of children unvaccinated now than there were ten years ago. We cannot profess to determine here whether this state of things is due to alterations in the law touching vaccination and the machinery for effecting it publicly, or to the effect of a clique of fanatics who call themselves the Anti-Vaccination League. Our business is to note the fact of a correspondence between an increase in the number of presumably unvaccinated children and an increase in the mortality from small-pox among them.

The medical officers of the Small-pox Hospital attribute

this epidemic to the imperfect protection of the public by vaccination. Nothing has occurred during 1870 to shake the confidence of the medical officers in vaccination. But they observe that vaccination is an operation of considerable delicacy, and requiring much care in order to secure the advantageous results it is capable of securing.

Revaccination is the subject of some very important remarks in the Report of the Small-pox Hospital. "In the present state of the population," say the medical officers, "revaccination is of scarcely less importance to the adult than is primary vaccination to the infant. ..... We believe that revaccination extensively practised, and *with the same precautions to ensure efficiency as ought to be observed in primary vaccination*, will prove to be the most certain mode that could be adopted of checking the present epidemic of small-pox." We have spoken plain words on this subject during the past few weeks—plainer, perhaps, than were convenient to those in authority and responsible for the system of vaccination and the supply of lymph, but not plainer than the facts of this horrible epidemic demand; and we are glad to have them confirmed, and almost repeated, by such authorities as Dr. MUNK and Mr. MARSON. The scandal of this epidemic can only be removed by revaccination, and the sooner adequate public arrangements are made for it the better. Mr. SIMON has at last issued a special memorandum on the subject, which, together with the growing severity of the epidemic, will create a demand for revaccination such as it will tax all the wisdom of the Privy Council and all the energy of private practitioners to meet. We hope all practitioners will aim at making the most of their supplies of lymph by always having a certain number of primary vaccinations on hand from which to revaccinate. We have referred elsewhere to Mr. SIMON'S memorandum and the steps which seem to us called for if this plague-like and discreditable epidemic is to be stayed.

THE organ of the British Medical Association last week addressed to us a series of reproaches, for our action respecting the Medical Bill, which are singularly ill-judged. The writer of this admonition makes himself the direct apologist of the Reform Committee, and with an extraordinary forgetfulness of what the action of that Committee has been, he complains of THE LANCET for not publishing at length the resolutions at which the Committee arrived at the Birmingham meeting which decided on an Association Medical Bill. Now, in the first place, we have already observed that there is not the slightest reason to believe that the Reform Committee represents the general feeling of the members of the Association on this question; on the contrary, from the expressions of opinion that come to us from all sides, we are convinced that a large majority of those members would distinctly repudiate the direct representation of the corporations to the extent of one-half the members of the General Council, and would insist as strongly as we could do that the number of the Council must be greatly reduced if it is to be converted from a mere talking-shop into a useful deliberative body. Nor can the Reform Committee pretend for a moment to represent the intellect and professional eminence contained within the Association; for although it includes several respectable practitioners, and one eminent person (conspicuous by his absence from the Birmingham meeting), it is notorious that the most distinguished members of the Association altogether hold aloof from its political action, and that on this particular question of reform the existing Committee has been implicitly condemned by the four distinguished members of Committee of Council who recently resigned.

Such was the real amount of intrinsic authority and importance attaching to this Reform Committee, which now makes the ludicrous assumption that it possessed the exclusive right to draw the first sketch of a Medical Reform Bill, and affects to treat THE LANCET (founded as it was by one who dealt with these questions when most of the Committee were little boys) as an interloper and a mischief-maker. But the most singular thing of all is that these Committeemen should raise the cry of injustice against us because we have declined to give their resolutions any further publicity than was necessary to point out the fatal objections which render it useless to consider their scheme any further. In the name of wonder, what *did* the Committee expect? Their *Journal* studiously ignored the Bill which THE LANCET had drawn with great care and at considerable expense, or, rather, mentioned it only by an insulting aside-remark. The published report of the Birmingham meeting, again, suppressed all mention of our scheme, though the whole profession was discussing it.

We fear that the Reform Committee will find it somewhat difficult to sustain the *rôle* of injured innocents now that these facts have been presented to the notice of the profession; and it seems to us that, if they really desire to promote unanimous and effective action on behalf of reform, their obvious course is to set aside the whole of their proceedings so far, and endeavour to ascertain what is the general feeling of the profession, outside their own small circle, about THE LANCET Medical Bill.

NOTHING can better illustrate the difficulties that beset the determination of the minute points of microscopical inquiry than the discrepancy of opinion that exists amongst the best observers in regard to the structure of the red blood-corpuscle. For many years it was held to be indisputably a cell, and to consist of a definite cell-wall enclosing cell-contents. For some time past, however, a change of opinion has been visible; and in most of our text-books of physiology, if it be not expressly stated, it is at least hinted as probable, that the corpuscles are homogeneous semi-solid bodies, the surface of which may perhaps be a little more condensed than the interior. The remarkable experiments of Mr. ROBERTS, of Manchester, on the action of anilin and tannin, though at first apparently in favour of the cell theory, were yet subsequently considered to be explicable on the theory of homogeneity, by supposing that these agents hardened the surface, and so led to the phenomena observed. The peculiarity and persistence of the form of the red corpuscles, and their behaviour on the application of pressure, are certainly in favour of this latter view. A paper, however, by Dr. JOSEPH RICHARDSON, of Philadelphia, which we have just received, speaks strongly in favour of the older cellular view. This gentleman's experiments were conducted upon the Meno-

branchus, which he obtained from the Cayuga Lake in Western New York, the blood-corpuscles of which animal are, as is well known, gigantic, being about 216 times larger than those of man. In endeavouring to discover some indications of the presence of a cell-wall, he found quite unexpectedly that the coloured portion possesses the remarkable property of crystallising with great readiness *within* its envelope. DR. RICHARDSON states that, on slightly concentrating the blood of this animal, one or two crystals form in almost every corpuscle; and the effect of their formation and elongation is precisely what we might expect to be produced by bodies of similar shape contained within an ordinary bladder partially filled with fluid, the ends of the corpuscle being in some instances thrust out till the length becomes a third greater and its breadth correspondingly diminished, the nucleus being closely compressed against the prism. In other instances, where the corpuscles lie across, the whole corpuscle assumes a lozenge or rectangular form, in which state it may be mounted dry. DR. RICHARDSON further argues—though this is less satisfactory evidence—that on briskly stirring freshly drawn blood with several times its volume of water the colouring matter can be withdrawn, leaving the cell-membrane intact. And, finally, he has succeeded in dividing a corpuscle under the microscope with a sharp needle; the contents escaped, while the cell wall shrank up around the nucleus into a perfectly hyaline particle. From these researches he concludes that the older theory, which asserts that the red corpuscles of the vertebrates generally are vesicles, each composed of a delicate, colourless, inelastic, porous, and perfectly flexible cell-wall, enclosing a coloured fluid, which is sometimes crystallisable and is freely miscible with water, explains the physical phenomena presented by the red globule far more satisfactorily than any other hypothesis that has hitherto been advanced.

Without disputing the accuracy of the observations here recorded in reference to the corpuscles of the Amphibia, we would just remark that it by no means follows that the structure of the corpuscles of the higher animals is at all similar; and we are still disposed to hold the opinion of Mr. GULLIVER, that, in mammals at least, the red corpuscles are nuclei, and as such are probably homogeneous in composition, and destitute at any rate of a proper cell-wall.

THE College of Physicians in Ireland has had under its consideration the subject of Clinical Knowledge, and the means by which the student's possession of it may best be tested. No subject could be more worthy of discussion in a College of Physicians. The following resolutions, moved by Sir DOMINIC CORRIGAN, Bart., M.D., M.P., and seconded by Dr. STOKES, Regius Professor of Physic, were carried:—

"That, in the opinion of this College, a mode of combining clinical education with clinical examination of students, educated, wholly or in part, at the Dublin hospitals, might perhaps be devised, that would secure the possession by Dublin hospital students of a superior knowledge of practical medicine in the following way—viz.:

"That the physicians of the several hospitals in Dublin should constitute themselves into an examination board.

"That such board should institute periodical clinical examinations at each hospital of the students attending such hospital who would desire to present themselves for examination.

"That the examining board at each hospital should consist of at least one of the physicians of the hospital, with two or more physicians from other hospitals; and that a certificate of having passed such clinical examinations should exempt candidates for the licence of this College, educated, wholly or in part, in Dublin hospitals, from the clinical examination to be undergone at the final examination for the licence. And that a copy of this resolution be forwarded to the physicians of the recognised hospitals of Dublin for their opinions."

It is impossible to differ from the College of Physicians as to the importance of clinical examinations in the course of the period of study. Such examinations are practised, in one form or another, in Edinburgh and in various continental schools; and we have no hesitation in saying that they should be held in every medical school worthy of recognition. It would be well that a recommendation should emanate from the Medical Council in favour of such examinations being frequently held in every large medical school.

Sir DOMINIC CORRIGAN, however, seems to us to go too far. He proposes, not only that the physicians of a hospital should constitute themselves into an examining board for holding periodical clinical examinations, but adds a rider to the effect that such periodical examinations should exempt students from the clinical examinations to be undergone at the final examination for licensing. Now, this is to confer upon the physicians of hospitals the power of passing students in the most important subjects in which they are examined. And if the principle be sound in regard to clinical subjects, it would be difficult to say why it should not be applied to physiology and anatomy—why, in short, there should be any final examining boards at all. We do not overlook that the hospital physicians are to have one or two assessors from other hospitals; but practically they would be the judges of their own students, which we think radically objectionable. With this qualification, however, Sir DOMINIC CORRIGAN's proposal is a very valuable one.

A recommendation in a similar direction was the principal point in an address delivered by Sir WILLIAM JENNER to the Medical Teachers' Association in 1869. Sir WILLIAM then suggested, as the only means of securing the possession of clinical knowledge, that the candidate's clinical knowledge should be tested before submitting him to examination. By way of forcing the student into the wards and into familiarity with cases of disease, he was to be made to understand that no examination would take place in other subjects till he could show that he was "a clinical physician." We hope Sir DOMINIC CORRIGAN's proposal will result in the establishment of boards for clinical examination in every hospital; but, revolutionary as we are supposed to be, we cannot desire that they should supersede the work of the final examining boards.

WE observe that the Visitors of the North Wales County Lunatic Asylum have, on the recommendation of the medical superintendent, resolved to erect a Turkish bath for the asylum, at a cost of £400. In the desultory discussion

which preceded the adoption of this resolution, some extraordinary statements were made respecting the wonderful percentage of cures alleged to have been effected by the bath; but we miss in the arguments used, as well as in the medical superintendent's report which was the occasion of the discussion, any exact statement of the real scientific value of the Turkish bath in the treatment of insanity. Some of the Visitors appear to have desired such a statement before sanctioning the required outlay, but to have obtained only, in place of it, an assurance that the bath is found to be the cheapest mode that can be adopted as a means of cleansing. The report of an asylum in which it was stated that 74 per cent. of insane cases were cured by the use of the Turkish bath seemed, as it well might, to occasion some scepticism. "Was he an Irishman," one gentleman asked, "who made the statement?" "Yes," replied another; "and he must be an Irishman who can believe it." We certainly think that he who believes such a statement, whether Irishman or not, must be a man of *not* little faith. Perhaps the asylum referred to was the same which was visited on one occasion by a gentleman much interested in the question of the therapeutical use of the Turkish bath in asylums. He had gone there to examine the arrangements which were alleged to produce so large a percentage of recoveries, in order that he might imitate them; but when he got there he discovered, to his dismay, that the Turkish bath was used regularly as a drying closet, and had not been used as a bath for months! It can admit of no question that the real value of the Turkish bath in the treatment of the insane remains to be determined; no exact discrimination having yet been made of the cases in which it is useful. There has been an abundance of vague laudation; but there is yet an entire absence of precise scientific details. The consequence has been that no little distrust has been excited in many minds, which the extraordinary percentage of cures spoken of, giving to its advocacy an air of quackery, has not tended to diminish. It is much to be desired that a thorough trial of its therapeutical effects should be made in accordance with a proper scientific method. There is ample opportunity for such trial in the county asylums which have Turkish baths. But when we think of the scientific work which is not done, but which ought to be done, in our numerous county asylums, we are almost in despair. With a few, a very few, honourable exceptions, medical superintendents seem ambitious only to be good clerks, stewards, or farm-bailiffs, dreaming the while that they are engaged in some marvellous moral treatment of the insane; so that it would be no exaggeration to say that there is not a hospital in London, however small, in which more scientific work is not done in a year than is done in all our county asylums in ten years. Perhaps the Visitors of the North Wales Asylum will, after opportunity given for adequate trial, call for a precise report from their superintendent of the results of the use of the bath.

DR. ACLAND, the Regius Professor of Medicine at the Oxford University, proposes to form a class for the practical study of the requisites for personal and public health. In connexion with the class, instruction will be given at the museum by Dr. C. C. Poole, of Exeter College.

Medical Annotations.

"Ne quid nimis."

PUBLIC REVACCINATION AND THE PANIC.

IT is gratifying to us to see that at last Mr. Simon has directed public attention to the necessity for the revaccination of all persons at or over the age of puberty. We do not doubt that Mr. Simon has good reasons for not having done this sooner. But it is still to us a matter of regret that it was not done a month or two months ago. Many lives would have been saved, and the proportions of the epidemic would doubtless by this time have been decidedly reduced. We have urged the matter from the beginning of the high mortality from small-pox, and expressed our surprise that it was not more prominently noticed in the various letters and memoranda of the Privy Council. Now the notice of it comes only in the rear of public opinion, or rather public panic. We can only say, "better late than never."

It remains to be seen whether the authorities of the Privy Council will follow up the memoranda setting forth the importance and gratuitousness of revaccination with any modification or enlargement of the machinery for public vaccination. We are entitled from much observation to speak strongly on this point. The vaccination stations are in a state of panic, and the public vaccinators are unable to overtake the primary duty of vaccinating all the children that present themselves. It is impossible to breathe freely, much less to move freely, in most of the stations, which are simply a promiscuous crowd of women and children, with a copious sprinkling of gentlemen, who are evidently general practitioners wanting any amount of vaccine lymph they can get to take away with them. There are two secondary duties which will now press more and more severely on the public vaccinators, and which they will be quite unable to discharge satisfactorily without assistance. One is to utilise all the lymph of accomplished vaccinations, greedily storing in tubes that which is not given to medical applicants or used by the public vaccinator. The other is the revaccination of grown-up people, who come in shoals to the stations, and who will now come still more freely. Unless special assistance and more method are imported into the working of the stations, precious lymph will be wasted, as to our knowledge it is already, and women and children will be elbowed out of the way by men and boys. The collection of lymph in tubes is a duty that might well be entrusted to one person at each of the stations, otherwise revaccination will be done with points, and brought into discredit. Whether the small number of public vaccinators is best for ordinary work is doubtful, but certainly for the present crisis it is insufficient.

IMPORTANT ALTERATION IN THE FIRST M.B. LOND. REGULATIONS.

THE Senate of the University have decided to improve the practical portion of the examination in Physiology at the First M.B., and have instructed the Registrar to give notice to the various medical schools in connexion with the University that at the First M.B. examination of 1872 and subsequent years, candidates will be required to show a practical acquaintance with histology. This step has been taken in consequence of certain representations lately made by the examiners in physiology, Mr. Power and Dr. Michael Foster, to the Senate. These gentlemen, peculiarly fitted to form an opinion on the subject, reported that, as the simple *viva voce* examination, as at present conducted, is of little use beyond the opportunity it affords of clearing up uncer-

tainties and obscurities of expression in the written papers, it might be abolished. They further stated, however, that the microscopical part was open to many objections, and might very well be improved. As matters now stand, about fifteen minutes are given to each student; consequently only a few microscopical specimens can be shown the candidates, and these have to be examined hurriedly, whilst their bare recognition is all that can be secured, and the newcomers who wait their turn outside the examination-room are to some extent primed by those who have been under examination. To obviate existing defects, and to perfect the *viva voce* part of the examination, the examiners suggested that the whole of one day, or the halves of succeeding days, should be given up to practical histology, and the candidates be examined in batches of twenty-four, each batch being placed in a room properly fitted up, so as to give each student a microscope, glasses, reagents, needles, scissors, razor, &c., who should also be supplied with portions of tissues, fresh and prepared for examination, and properly numbered, together with mounted specimens, all of which he should carefully examine for himself at his leisure, during three hours, and properly report upon, "putting up" perhaps, with his own hands, certain specimens as he may be directed. Whilst the mere questioning part of *viva voce* examination is not to be abolished, the Senate have, however, approved of the above plan for the examination of tissues which the examiners have submitted to the Senate; and, consequently, every candidate for the First M.B., after the present year, will be examined according to that plan, and the three hours' work which he will have to do in the histological laboratory will speedily prove whether his is mere book knowledge, whilst it will give a really practical character to the physiological examination which it does not at present possess. Mr. Power and Dr. Foster further suggested that the examiners should test the student in practical physiology. The Senate, however, "deem it expedient to limit the practical examination in the *first instance* to histology." We cordially commend the step taken by the Senate of the University of London.

SCARLATINA IN INDIA.

IT was a long time before the presence of typhoid fever was generally recognised in India, although it is now, and has for some years been, admitted by all as a common disease of that climate. We believe that we are correct in saying that, with the exception of small-pox, the contagious exanthemata are rarely met with; indeed, the occurrence of scarlatina in the hills or plains of India has been denied by many medical men practising in that country. There is no reason, however, why European diseases should not occur in similar climates in Asia. Still, the appearance of a disease for the first time in a country is very interesting; and we are at once met with the question as to its origin. Of course it may have been that, as in the case of typhoid fever, the disease was already in existence in India, but unrecognised. Be this as it may, Assistant-Surgeon Maunsell, of the Royal Horse Artillery, met with a case of scarlatina at Simla in May last, of which he published a short description in the *Indian Medical Gazette*. Some scepticism prevailed at first as to the accuracy of his observations, in consequence of the asserted non-existence or extreme rarity of such a disease as scarlatina in India. The Sanitary Commissioner for India, Dr. Cunningham, was satisfied of the reality of the case; and other medical officers have since encountered undoubted examples of the disease in the hills. Some of the Calcutta physicians, moreover, are of opinion that they have lately had cases of scarlatina. The disease appears to be of a milder type than is met with in this country; but it presents the same characters, and, to judge from the way in which it spread in a family residing at Simla, is as contagious in India as at home. It is very possible that the disease has been imported into India. The freer intercourse of late between that country and England and other European places may have rendered this an easier matter than hitherto; but it is to be regretted that the history and causes of the outbreak have not been thoroughly traced.

THE HOSPITAL SUNDAY MOVEMENT.

THIS subject is exciting considerable attention in Leeds just now, and it appears to be in contemplation to call a public meeting of the inhabitants to decide whether or not a *bonâ-fide* Hospital Sunday shall be instituted for the town; at least we gather as much from the report of the proceedings at the recent annual meeting of the Leeds Hospital for Women and Children. It has been the practice hitherto to have Sunday collections annually, but only two of the medical charities of the town have benefited thereby, the Infirmary taking two-thirds of the sum collected, and the Dispensary the remainder. Twelve months ago we urged upon Leeds the adoption of the Hospital Sunday principle in its integrity; and we cannot doubt, after what has just occurred at Liverpool, that the result of following our advice would certainly be satisfactory, quite as much to the Infirmary and the Dispensary as to the new participants. We shall hope to hear that the idea of a public meeting to consider this matter is likely soon to be carried into effect.

At the annual meeting of the governors of the Lincoln County Hospital, lately held, it was stated that, as a consequence of the principle of simultaneous collections first adopted last year, the hospital obtained £938 from collections in 266 places of worship, whereas in 1869 there were only 141 collections, realising £543. We are rather struck by the comparatively small part of the £938 which was contributed last year by the city of Lincoln itself, and indeed the sum total is not so large as one might have expected. The *Lincolnshire Chronicle*, however, hints that the Nonconformists have held back because of one of the hospital rules requiring that the resident officers, nurses, and servants should be members of the Established Church. This rule has now been rescinded, and we shall not be surprised to find that the result of next Hospital Sunday in Lincolnshire will bear us out in the principle we have always advocated—namely, that the movement, to be successful, must be free from even the suspicion of sectarianism.

The first annual report of the Hospital Sunday committee for the counties of Cumberland and Westmoreland has just come to hand, from which it appears that the total working expenses amounted to less than £6; while we find, from a circular which has just been issued to the ministers of religion in the two counties, that the contributions amounted altogether to £722. The participating charities are five in number, and the circular contains the gratifying announcement that "last year most of these charities showed an unfavourable balance-sheet, but, owing to the generous co-operation of ministers of religion of every denomination on Hospital Sunday, the committee were enabled to allocate to the various institutions such sums as enabled them to meet their ordinary expenditure." Dr. Henry Barnes writes to us that Hospital Sunday may now be looked upon as a thoroughly established institution in the two counties, and that it is highly popular.

The total amount of the late Hospital Sunday collections in Liverpool is £4473 15*s.* 2*d.*, whilst a Saturday collection at sixty business establishments in aid of the same object has produced £82 13*s.* 2*d.*

The following striking testimony to the beneficial effects of the Hospital Sunday movement is extracted from the last

annual report of the Gateshead Dispensary: "The committee was induced to join in the Hospital Sunday movement for 1870, and after the division of the proceeds there was passed to the disposal of the committee £101. This amount was greatly in excess of the collections made on behalf of the charity in 1869."

THE ROYAL SANITARY COMMISSION.

SIR CHARLES ADDERLEY has sketched in broad outline, for the benefit of his constituents, the features of the forthcoming report of the Commission of which he is chairman. He says the report will elaborate "through comment and argument, a complete consolidation into one clear statute all the provisions which in every town and parish of England and Wales, *except the metropolis*, are required for the health and social well-being of the community." The idea of this one comprehensive Act will be "to render uniform, general, and active the powers of local government in every place under the inspection and stimulus of a central authority." Sir Charles further states that Mr. Bruce and two of his colleagues are hard at work preparing a Bill from these materials. We may, therefore, anticipate with some degree of certainty that, notwithstanding the pressure of grave political questions, the ensuing session will be signalised by the passing of a substantial measure of sanitary reform. That the metropolis is to be excluded from participation in the benefits thus to accrue to the rest of the country is of course much to be regretted; we must hope, however, that Mr. Bruce will afterwards take London in hand, and that at the same time that he provides it with a municipal government based on sound principles he will take care that in respect of sanitary matters it shall have one law in common with the whole of England.

The Report of the Commission is not likely to be made public before it has been presented to Parliament, and we have reason to believe that some little time, probably a fortnight or more, will elapse before that takes place.

NAVAL MEDICAL SERVICE.

WE are happy to learn that the representations which we have felt it our duty to make from time to time respecting the state of the pension list of the Naval Medical Department have produced their desired effect, and we understand that the Admiralty have, on the recommendation of the Medical Director-General, determined to bestow three additional Greenwich Hospital pensions on deserving naval medical officers—namely, one of £100 per annum on a deputy-inspector of hospitals, and two of £50 each on staff-surgeons. These pensions are in addition to the fifteen pensions to staff-surgeons of £50 per annum, and one pension of £80 to a deputy-inspector, already enjoyed by members of the service. We trust that these pensions will be a permanent boon to the service, and are not intended simply as temporary attractions which will be withdrawn so soon as opportunity shall occur. With regard to the good service pension vacated by the death of Dr. Wilson, and with respect to which the Treasury played one of those official juggles but too common in these matters, we are glad to learn that, as we anticipated in a recent number, this emolument will be at once restored to the gift of the Admiralty, and will be bestowed upon a distinguished medical officer now on the retired list. These improvements reflect credit upon the head of the department, who will, it is to be hoped, receive the support of the authorities in carrying out other needed reforms.

The negotiations respecting the opening of the Netley Medical School to the naval service are in a very forward state, and we hope to be able to announce shortly their satisfactory completion.

THE ST. PANCRAS INQUESTS.

THE guardians of St. Pancras have lately industriously striven to excite public sympathy on the score of the numerous inquests held by Dr. Lankester upon the bodies of paupers who have died in the workhouse. They have caused tables to be published which show that 425 deaths in the workhouse have been followed by 207 inquests; while 5010 deaths in other metropolitan workhouses have been followed by only 167. Now the holding of an inquest in any given case is a matter within the sole discretion of the coroner, who would be guided by the preliminary statements made to him or to his officer. With this discretion we do not mean to interfere; but we may, nevertheless, point out that we have not heard of any important sanitary reforms in the St. Pancras workhouse, and that we can imagine the evidence given at past inquiries about its state may influence Dr. Lankester in determining that any given death there forms a proper subject for investigation. Putting this aside, we would express a strong opinion that the figures given point to a defect which should be remedied. An inquest should be held upon every pauper who dies in a workhouse, as it is held at present upon every prisoner who dies in a gaol. The prisoner and the pauper are alike removed from the surveillance and tender offices of their friends, and are left in the power of officials who practically are wellnigh irresponsible. It is the duty of the public to cause such inquiry into their manner of decease as may shield survivors against the abuse of irresponsible power. It is well known that some of the most important workhouse reforms have been brought about by pertinacious coroners; and the reason why the scandals common in workhouses are unheard of in prisons is that the inevitable inquest would bring them to light. At the same time, the fact that it is inevitable prevents it from being an occasion of heart-burning to any. It is hardly fair that a coroner should be called upon to decide, necessarily upon imperfect information, whether in any given workhouse case he will hold an inquest or not. The duty of doing so should be made obligatory, and then no offence could possibly arise.

INDIAN HILL STATIONS.

SOME additional and valuable evidence of the good effects of the hill climate of the Himalayas upon the health of the European soldier in India is given in a medical report which has been drawn up by Dr. Curran to accompany the annual return of a detachment of the Connaught Rangers, employed as a working party on the Murree and Abbottabad roads during the hot season of 1869. The report is published in a recent number of the *Practitioner*, and will have been perused with considerable interest by those who are concerned in the all-important question of Indian sanitation. The hundred men worked hard for many months on the hills with this result, that, when they returned to camp, they had lost only one man, and he a subject of Bright's disease; and the contrast of their bearing and expression, and the pallid hue and attenuated frames of those of their companions who were kept in the plains, and had furnished high sick and death rates, was obvious to all. The rates of admission for sickness, in the two bodies of men, were respectively 518·67 and 2214·6 per 1000 strength. Dr. Curran, of course, shares the universal regret of sanitarians that, with so much evidence of an undoubted character in its possession, the Government should not at once decide to mass or employ larger numbers of British troops on the hills of India; and he points out that when a railway is completed from Lahore to that pestiferous station Peshawur, a branch might be run up to Rawul Pindee, or Hussen Abdal, to Murree or Abottabad, so that the troops who now languish on the burning sand of Attock and

Syden Bowlie, or who are racked with malaria or decimated by cholera in the great valley beyond the Indus, will be transferred wholly or in great part to the Himalayan range. This would indeed spare us the terrible ravages of preventable diseases similar to recent occurrences at Peshawur and Allahabad.

But it seems to us that the chief value of Dr. Curran's report is in that it shows how unfairly the hill climates are used, and the soldier dealt with when he is there located. The authorities proclaim by their acts a belief on their part that no sanitary or hygienic precautions are needed in the hills. For example, during the rains, the water-supply at the station referred to by Dr. Curran was allowed to be contaminated "by vegetable *débris* and other filth washed in it," and of course diarrhœa was induced by drinking it. Though recommendations were made that boards should be given to the men to lie upon, "they had to extemporise such makeshifts as their own ingenuity could contrive"; the huts used in the rainy season were without wooden flooring; the latrines were "mere temporary erections put up by the men themselves for temporary purposes"; the men were "unprovided with cots of any kind while in tents," and straw was given only "whenever practicable." The bedding was really insufficient when the cold was marked, and no waterproof sheets were supplied to any of the men for protection in the rainy season.

The neglect of proper hygienic precautions in this as in other cases suffices to account in some degree for the presence of a certain amount of disease which would certainly not have otherwise occurred. But, making allowance for this unfair treatment of men and stations, every mass of facts which comes to hand from time to time relative to the occupancy of hill stations, so far as it is carried out, shows how foolish it is, in a sanitary point of view, to still keep so large a force of European troops continually in the pestiferous plains of India.

THE AEROCONISCOPE.

SEVERAL modes have been suggested for collecting the organic dust that we now know, from Tyndall's experiments, to be so rarely absent from the air. One of the most ingenious of these, invented by Dr. R. L. Maddox, was described in the *Monthly Journal of the Microscopical Society* during the summer of last year; and Dr. Maddox now publishes in Dr. Lawson's *Journal* the results of his experiments. The instrument consists essentially of a thin glass cover, so cemented to a slide as to leave a small channel for the passage of air to the central space, the floor of which is covered with a mixture of treacle and a little acetate of potash in distilled water, on which the spores collected may germinate; the whole is mounted on a base which turns like a vane with the wind, the mouth of the channel being always directed windward. Dr. Maddox states that there appears to be no relation between the number of the germs and the set of the wind in any given direction, nor can any relation be established between the force of the wind and the quantity of spores. A gentle breeze was the most productive. The number of spores collected on a space of about one-sixth of an inch square varied from 250 to 0. The majority of the spores were small, pale, olive-coloured, and oval, mingled with darker-coloured ones, and both were apparently some form of smut. The months of July and August were most propitious for collecting. In some cases the spores began to germinate on the second day, others not before the twentieth day, and many did not germinate at all; nor could it be said, without trial, which was or which was not capable of growth or living. Dr. Maddox furnishes two plates illustrating a great variety of forms, but does not attempt to name them.

VIÆ DOLOROSÆ.

METROPOLITAN administration is not conspicuous for fertility of invention; and much confusion, resulting in mistakes alternately ludicrous and lamentable, has been caused by renaming streets with the titles already bestowed on dozens of others. "Queen-streets" and "Princes-streets," "Victoria-squares" and "Charlotte-places," recur with bewildering monotony in the Directory; and if Mr. Mill be right in deploring the dull uniformity of character which is steadily settling down upon us, our metropolitan administrators seem resolved to recognise the tendency by removing all variety from our local habitations and their names. The convenience of the public, however, must be consulted; and we beg to submit to the Board of Works a suggestion for providing any number of names distinguishing one street from another. The principle we go upon is to call the street by its character; and, accordingly, we would dub certain thoroughfares (say) in the East End "Small-pox-terrace," "Scarlatina-villas," "Cholera-road," "Typhoid-alley," "Famine-court," &c., as the returns of the Registrar-General would decide. To be sure, such a system of street nomenclature might have the effect of anticipating the insanitary agencies now at work in them, and leaving them, in a short time, tenantless. But, on the whole, the gainers by such a consummation would be the public, while the losers would be those who meet the appropriate fate which befalls everything that gets (and earns) a bad name.

THE ROYAL COLLEGE OF PHYSICIANS ON SMALL-POX AND VACCINATION.

THE Royal College of Physicians have considered it their duty to issue at the present time, when small-pox prevails extensively as an epidemic, and when much anxiety exists in the public mind respecting it, a document regarding small-pox, and the protective influence of vaccination and revaccination. With regard to the advantages to be derived from revaccination the College states that these "may be best secured, both for the community and for the individual, by a systematic performance of the operation on every person upon passing the age of puberty. For the community, because a well-grounded confidence would replace the present recurring panics about small-pox; for the individual, because the operation performed as part of a system would be done in the manner most certain to be efficient, and not, as at present too often happens, under conditions little conducive to a protective result. The practice of repeated or periodic revaccination does not appear to be generally necessary. But in instances where a person, after revaccination, has been subjected to serious constitutional or climatic changes, and is subsequently more than ordinarily exposed to the infection of small-pox, a further revaccination may properly be advised."

DRUNKARDS AND THE POLICE.

FOLLOWING closely upon our recent annotation on the case of the man Burns, who died in a police-cell at Halifax, Nova Scotia, while under arrest as a drunkard, we have two cases nearer home of a similar kind. One of these happened at Brighton, and the other at Walton, near Esher. In both instances apparent drunkenness was produced by no very large amount of alcohol, and in each the victim survived sufficiently long to be removed from the cell, and taken either to a house or a hospital. But the dreary fact remains that two men, both partially or entirely intoxicated, were left for hours in a cold cell, with no covering but a sack or rug in addition to their own wet clothes, lying helplessly in a supine position, and that they both perished

from the congestion of internal organs that was thus occasioned. The matter is made worse by the fact that, at Brighton, the policeman on duty had posted up on the wall before his eyes an order that no one brought drunk or insensible should be locked up until he had been seen by Mr. Penfold, the police surgeon. This order was simply ignored, and death in a few hours followed the night spent in a cell. Fortunately for the policeman, the coroner's jury took a lenient view of his neglect, for which he himself expressed much sorrow; and the matter is therefore likely to go no further. The general principle, however, is one that should be insisted upon by the Home Office, and not left to the discretion of subordinates. It is impossible for a police-constable to distinguish between drunkenness and illness, and no such responsibility ought to be thrust upon him. These cases show, moreover, that the unwarmed lock-up would be dangerous to life in the case of many sober people, and all these buildings should at once be placed under medical inspection. It is monstrous that X 22 should be able to inflict upon a possibly innocent person a night of such torture as would be endured by no criminal under sentence. We trust that the attention of Parliament will be called to the whole system of "locking-up" at an early period of the coming session.

THE REMAINS OF PLATYCNEMIC MEN IN DENBIGHSHIRE.

AN interesting paper by Mr. Boyd Dawkins and Prof. Busk appears in the January part of the *Journal of the Ethnological Society*, on the occurrence of the remains of men whose tibiæ were remarkably compressed laterally, giving to transverse sections of the bone almost the form of a vertical antero-posterior section of a canine tooth, instead of the irregularly rhomboidal form by which they are usually characterised. This peculiarity was first noticed by Dr. Falconer and Mr. Busk in 1863, in human remains procured from the Genista cave at Gibraltar, and almost coincidently by Prof. Broca, in tibiæ procured from the dolmen of Chamant (Oise), and subsequently in those discovered at Montmartre by M. E. Bertrand. Mr. Busk considers it in the highest degree improbable that it constitutes a race character, and still less that it can be looked upon as indicative of simian tendencies, a notion that M. Broca seems inclined to favour. The remains were found in a cave at Perthi Chwareu, near Corwen, with bones of the dog, fox, badger, pig, roe and red deer, sheep, Celtic shorthorn, horse, water-rat, hare, rabbit, and eagle, and in another at Cefn, near St. Asaph, where the tomb was remarkably divided into chambers. There appear to have been at least sixteen bodies, and Mr. Dawkins refers them to the Neolithic age.

HABITUAL DRUNKENNESS.

WE are glad to see that Mr. Dalrymple, M.P., purposes once more to bring before the House of Commons his Bill for the reformatory seclusion of habitual drunkards. We feel that in doing so he deserves the warmest support of all who desire to promote the welfare of society. Among the respectable classes there is no other curse to compare with the habitual drunkard in a family. Medical practitioners see more of the nature and extent of the evil than most other persons; and we call upon our readers to urge upon members of Parliament, and to enforce by illustrations drawn from their personal experience, the necessity that exists for some such law as that which Mr. Dalrymple's Bill will provide. The Legislature has recently greatly extended the facilities for the sale of alcoholic drinks, and has thus indirectly rendered the descent to habitual intoxication more easy than it has ever been before. It requires to be guarded, therefore, by additional securities; and it cannot be doubted that Mr. Dalrymple's Bill would have a largely preventive, as well as a curative, operation. It has been cordially approved by the Public Health Department of the Social Science Association, under the presidency of Dr. Symonds, and may be regarded, on the whole, as among the most crying wants of the day.

PROFESSOR HUXLEY AND VACCINATION.

A CORRESPONDENT of the *Marylebone Mercury* recently referred to Professor Huxley as "one who had himself signed the protest against compulsory vaccination"; and a report to the same effect has been diligently spread abroad through various channels. We thought the matter of sufficient importance to justify us in inquiring of Professor Huxley whether the report was true; and we rejoice in being able to meet it with an authoritative and formal contradiction. Professor Huxley states that, "during his candidature for a seat on the School Board he found himself compelled to contradict a report, which had been industriously set about, that he was a champion of spirit-rapping and table-turning; and he cannot but think that the report that he is opposed to compulsory vaccination is a piece of work from the same manufactory." We should have felt no difficulty in expressing our total disbelief of the statement, even if the Professor could not have been himself appealed to; but now the matter is for ever set at rest. We hope that any journals that have assisted in publishing the report will give at least equal publicity to the contradiction.

WATER FROM THE CHALK.

PROFESSOR TYNDALL'S proposal to supply London with water from the chalk has produced a letter in *The Times* from a writer who seeks to show that pure water would be injurious to men, from its very tendency to dissolve and appropriate any noxious matters that it might encounter. His argument is that any idea of purity must be Utopian; and that man is placed in the world to use its good things as they are. The writer forgets, or perhaps does not desire to see, that Professor Tyndall's proposal is to take a natural water, and to remove from it a single substance which unfits it for certain domestic uses. By doing this he would shut out, partly or entirely, a water that is not natural in any sense—that has been frequently defiled by human excrement and tidal filth, and that carries into our cisterns all manner of solid dirt in suspension. There is here no straining after unattainable purity; but simply a proposition that, having a good and a bad thing equally at our disposal, we should use the former rather than the latter. It has also been objected by more than one writer that the yield of the chalk would be insufficient, and that there are serious engineering difficulties in the way of its being utilised. To the first part of this objection the Professor himself furnishes a very simple and conclusive reply—saying, "Let us at least use the good water as far as it will go." To the second we make answer that engineers always find means of overcoming difficulties that it is not their business to magnify.

DOMESTIC ANODYNES.

WE regret to announce a death said to have been occasioned by a self-administered over-dose of chloral hydrate. The deceased was rector of a village in Northamptonshire, and suffered from sleeplessness, on account of which he had been in the habit of taking opiates for some time past. Latterly he had used chloral hydrate instead; and he was one morning found dead from its effects. We are not told what amount was taken, nor by what post-mortem appear-

ances death was traced to the action of the drug. But the case speaks loudly as a warning against the folly of those people who will persist in dosing themselves with powerful medicines without medical guidance. In many countries the sale of such medicines to non-professional people is only permitted when an authorised prescription is to be dispensed; and it would be well if we could remodel our almost inoperative Poisons Act, in such a way as somewhat to restrain the liberty of the subject, with a view to the preservation of his life.

COMPOSITION OF LINT.

MR. T. GREENISH (*Quarterly Journal of Science*, January 1, 1871), has examined microscopically the various articles sold as lint. The result appears to be that those labeled "lint" consist entirely of cotton; while, with one exception, those described as "flax lint" contain more or less cotton, but, by an ingenious arrangement of the materials, the linted surface is composed almost entirely of flax. There is an idea prevalent that cotton forms an extremely bad application to sores, causing great irritation; and linen is generally preferred in dressing. Should this prove to be the case, any adulteration of flax lint would be an undoubted evil; but lint wholly of cotton is used extensively in hospitals, and had it been productive of any bad consequences, its use would soon have been discontinued. The peculiar lint known as charpie, employed in Continental hospitals, and the marine lint, were also examined. Microscopical examination fails to throw any light upon the alleged irritating properties of cotton, as, although the fibres are flat, they have a perceptible thickness at the edges, and are, moreover, rounded; the section of a cotton filament being somewhat like that of a thin tube flattened. It has been suggested that the cause of irritation was not owing to the form of the fibre, but to its hygroscopic power of twisting when moistened, and causing irritation by its movement.

DRAINAGE OF RICHMOND.

THE Vestry of Richmond have applied to the Home Secretary for permission to purchase the Blagdon-farm estate, situated in the parishes of Maldon, Merton, and Kingston-upon-Thames, for the purpose of utilising the sewage. The Thames Conservancy Board have refused to extend the time allowed for diverting the sewage from the river, and, unless action be immediately taken, the Vestry will become liable to a fine of £100 for the first day and £50 for each succeeding day that the sewage continues to flow into the river. It seems to be a matter of course that every possible obstruction should be offered to the Vestry; and at the inquiry which was held by Mr. Harrison last week a crowd of representatives of various interests were present to oppose the scheme. Perhaps the best remedy would be to allow the law to take its course; and if the Vestry should be called upon to pay £50 a day for a week or two, public opinion would soon rise to the occasion, and insist on some scheme of irrigation being at once put in hand.

SENDING MORIBUND PATIENTS TO THE PUBLIC HOSPITALS.

THE Poor-law Board have already experienced the inconvenience of having erected hospitals at so great a distance from the patients who require to be removed to them. It has come to the knowledge of the Board that some patients have been sent to the small-pox hospitals in so advanced and aggravated a state of disease as to offer but little hope of recovery, and to render the danger of removal especially great. The Poor-law Board would have stated the case more exactly if they had said that the patients had arrived in the moribund state described, since it does not follow that they were sent away from their homes in the state complained of. Small-pox, like other lesions affecting any considerable portion of the skin, produces great depression of the vital powers. The majority of the patients who succumb to it do so from exhaustion, and it therefore follows that none but the mildest cases can be removed to considerable distances without danger, particularly when, as is generally the case, they are conveyed in old cabs, in which they are compelled to maintain a semi-recumbent position throughout the journey. It is one thing to remove a patient into a neighbouring workhouse, and another to send him away on a journey of several miles; and the Poor-law Board have done quite right in warning district medical officers on the grave responsibility they incur in doing so.

SEAMEN'S HOSPITAL SOCIETY.

IT appears from the Annual Report of this Society, which has just appeared, that 2179 patients were admitted into the *Dreadnought* and the infirmary of Greenwich Hospital during the year ended January 31st. The cost of removal from the *Dreadnought* amounted to £1990, and the ordinary expenditure of the year to £8930; but the latter item is somewhat reduced by certain payments received from the Admiralty for the care and maintenance of a few Greenwich Hospital pensioners, who were too ill or too helpless to be removed when the building was handed over to the Society. A total of 1358 out-patients were treated, and an increase in that department is anticipated, as the hospital is situated in a thickly populated district, and no general hospital exists nearer than London-bridge—a distance of about four miles.

THE POLICE AND THE PUBLIC HEALTH.

COLONEL HENDERSON has issued an important circular, under the head of "Police Orders," in which the duties of the force are very clearly laid down as to the conduct to be pursued in the matter of common lodging-houses and disinfectants. For the lodging-houses special precautions will be taken to secure their immediate inspection in a case of fever or any serious illness occurring therein. On the inspector being satisfied of the presence of disease, the divisional surgeon shall be empowered to deal with the patient as he sees fit. In the matter of disinfectants, the chief reliance is placed on carbolic acid, while full instructions are given as to the treatment to which the urine and evacuations, the foul clothing and body linen, should be subjected. The process of cleansing is to be vigorously enforced in all back yards, and around infected dwellings, and every means is to be taken to disinfect the house after death. If the regulations are carried out as stringently as they are conceived, epidemics should no longer flourish in our midst.

THE MUTUAL MEDICAL AID SOCIETY.

ONLY last June we called attention to the fallacious statements put forth by some members of the daily press in support of the "Metropolitan Medical Aid Society," then in process of formation. We have from time to time since that date received notice of the appointment of various gentlemen in or about London as medical officers of the Association, and we have now the not unpleasant duty of announcing that the society in question ceased to exist some time since. Its formation was so contrary to all true principles of political economy, and it was so entirely opposed to all those honourable relations between patient and doctor which form so great a bond of English society, that we never anticipated any but an early death for the

Society in question. We must say that we learnt with regret that practitioners of respectability should have been so shortsighted as to have cast in their lot with any such Society; but alas! medical men are too often very unknowing in their investments—witness how few doctors manage to lay by their earnings in safety for their children,—and the prospect of a few additional patients, even at a ruinously low rate, will too often tempt a needy man to do what his better nature resists.

We hope that none of the medical referees of this Society have been induced to invest money in it as well as brains, for if they have, we fear their Christmas accounts will be somewhat on the wrong side. And here we may venture a word of caution which, to judge from letters constantly reaching us, is still required, at least by the younger members of the profession. The worst investment a doctor can make is to spend money in order that he may do unremunerative work. To buy a share of a good practice is a perfectly legitimate investment of capital, and one which a lawyer would sanction, with due precautions as to terms; but to take shares in any company with the view of being appointed a medical referee, is simple madness; nor can much more be said for the expenditure of large sums in canvassing for a public appointment which has no emolument whatever, and the prospective advantages of which are almost *nil*.

FATALITY OF SMALL-POX AT DIFFERENT AGES.

THE Registrar-General states that of 755 deaths registered in London from small-pox during the past five weeks, 348 occurred to children under five years of age, 196 to young people aged between five and twenty years, 168 to persons between the ages of twenty and forty, and 43 to persons over forty years of age. Taking the ages of the living into account, the mortality in the five weeks from small-pox was at the annual rate of 10·6 per 1000 among young children, of 2·6 per 1000 between the ages of five and twenty, of 2·1 per 1000 between twenty and forty, and of less than 1 per 1000 above forty years of age. It is thus shown that the fatality of the disease is four times as great in the first five years of life as it is at any subsequent period, and we hope that the knowledge of this fact will be spread abroad as affording indisputable proof of the importance of early vaccination.

"MALINGERING."

MALINGERING is one of the proclivities of mankind which all medical officers of public services and public institutions should study closely, carefully, and systematically; for we dare to say that many physicians and surgeons, holding high rank in the profession, have, in the course of their career, and far oftener than they would care to confess, been deceived by "skulkers" of one grade or other. Malingering, as distinguished from hypochondriasis, exists chiefly in the army, navy, and mercantile marine, but is affected to some extent by a few members of all clubs. It is a favourite line of action with prisoners, and an art in which the in-door pauper is particularly proficient. All institutions, indeed, that partake as much of the home as of the strictly hospital character are liable to have a constant supply of black sheep of this sort among their inmates.

HEALTH OF GUILDFORD.

DR. MORTON'S report on the health of Guildford during 1870 shows a death-rate of 21·6 per 1000. The deaths from enteric fever were 13, and from all zymotics 33, the total from all causes being 210. Dr. Morton points out the danger to which towns surrounding London are exposed, now that small-pox is epidemic there, by the customary spring exodus of tramps from the metropolis into the provinces; he therefore urges upon the Guildford authorities the strict enforcement of the Vaccination Act, and especially to procure as far as possible the revaccination of the keepers of and residents in all the lodging-houses of the town. The local board expect shortly to obtain possession of the land chosen by their consulting engineer for the site of the new well for the improved water-supply.

THE PARTRIDGE TESTIMONIAL.

WE understand that a very handsome sum, amounting to between five and six hundred pounds, has been subscribed for the purpose of presenting a testimonial to Professor Partridge by his friends and old pupils at King's College. The Committee appointed to carry out the wishes of the subscribers have handed Mrs. Partridge a cheque for the amount, with a request that she would kindly undertake its disposal in the way most agreeable to the Professor, as they felt that she would best be able to ascertain his wishes in the matter.

A NEW BIRMINGHAM HOSPITAL.

WELL-AUTHENTICATED reports warrant the belief that a scheme is on foot for establishing in Birmingham a Hospital for Diseases of Women. Reserving our opinion on the project until its details shall have been published, a timely warning may be of service. Scientific and administrative experience is against the multiplication of special hospitals; in favour of developing special departments in general hospitals. Science is rarely promoted, the profession frequently injured, and much public money wasted by endeavours to enclose fields for practice for enterprising specialists. We do not deny exceptions, while deeming it our duty to utter a word of caution.

QUEENWOOD COLLEGE, HANTS.

NOT a few medical men who have distinguished themselves at the examinations of the London University have received their education at this flourishing institution, which has had among its teachers Professors Tyndall, Hirst, Debus, Frankland, and Galloway, and among its pupils can now boast of the senior wrangler of the present year at Cambridge, Dr. John Hopkinson. This gentleman, who is in only the twenty-second year of his age, had previously earned much distinction at the London University, where he matriculated in honours in 1867, and subsequently obtained the exhibition for Chemistry and Natural Philosophy at the first B.Sc. examination, the Mathematical Scholarship at the final B.Sc. examination, and the degree of Doctor of Science in two branches in 1870. Dr. Hopkinson's career at Cambridge has been not less brilliant till it has culminated in the highest honour which that University can bestow.

ROYAL MEDICAL BENEVOLENT FUND OF IRELAND.

WE are happy to find, in the *Northern Whig*, an account of a successful meeting of the Belfast branch of this excellent institution. The kindliness and warmth of heart of our Irish brethren are in nothing more conspicuous than in their admirable society for the relief of professional distress; and are, moreover, supported by a very high degree of organising power,—as one evidence of which we may mention that members are appointed to the special duty of seeking subscriptions in their respective localities. We fancy that some of our own medical charities might take a hint from Ireland with advantage.

VACCINATION OF PERSONS WHO HAVE HAD SMALL-POX.

BY an extraordinary omission in the circulars of the Privy Council and College of Physicians, no recommendation is given for the vaccination of persons who have had small-pox. Several cases have come within our knowledge in which very fine vesicles have been produced in persons who have had small-pox; and it is well known that it is not unfrequently fatal on the second attack; indeed, a case was mentioned only last week in our Report on Vaccination, and another has since been reported to us. Experience shows that vaccination and revaccination together confer even greater safety than an attack of small-pox, and it therefore follows that vaccination should be strongly recommended under such circumstances.

"DAMNING WITH FAINT PRAISE."

AT the recent annual general meeting of the Montgomeryshire Infirmary, the Rev. F. H. Tompson moved a vote of thanks to the honorary medical officers, on the ground that "he had not heard a single complaint against them"! The vote having been accorded, "*grateful* thanks" were next presented to the honorary secretary. Does the distinction mean that there *had* been complaints against *him*?

AT a Quarterly Court of the Directors of the Society for Relief of Widows and Orphans of Medical Men, held Jan. 11th, £1078 10s. was voted in various sums to 56 widows, and £242 to 50 children for the half-year beginning January 1st. A sum of £22 was granted to one widow and two children as extra grants from the Copeland Fund. In the absence of the president, Dr. Pitman, V.P., took the chair. The court was well attended. The usual business of such meetings was transacted. Only two new members were proposed; there were none for election. The directors once again urge on the profession the necessity of increasing assistance to enable them to meet the very heavy and increasing demands on the Society. It is expected that the balance-sheets of 1870 will show but a few pounds to the credit of the Society. It having been decided that no anniversary festival be held this year, the directors earnestly request the wealthier members of the profession to make donations to the declining funds of the Society.

THE annual Oration before the Hunterian Society was delivered on Wednesday evening last, by Mr. T. B. Crosby, in the Lecture-hall of the London Institution. Mr. Jonathan Hutchinson, President of the Society, occupied the chair, and the meeting was numerously attended. A *conversazione* followed, at which microscopic preparations, drawings, wax models, &c., were exhibited by Dr. Hughlings Jackson, Dr. Moxon, Mr. Hutchinson, and others. The annual dinner of the Society will take place to-day (Friday), at the London Tavern.

RELAPSING FEVER is said to have caused fifty-two deaths in Glasgow in December. This is a very high mortality from a disease generally not fatal. Perhaps in some cases diagnosis may be at fault. There has been a slight epidemic of the same malady at Carlisle for some weeks past; but it has not been attended by any deaths.

THREE of the medical practitioners of Swindon have written to the local newspapers stating that they fully approve of the establishment of a cottage hospital for the town, and contradicting the assertion that they had received any invitation to attend the public meeting lately held to promote that object.

PROFESSOR FLOWER, F.R.S., will commence his course of eighteen lectures on the Character, Structure, Functions, and Modifications of the Teeth and allied organs of the Mammalia, on Friday, the 17th inst. The lectures will be delivered on each Monday, Wednesday, and Friday, in the Theatre of the College of Surgeons, at 4 P.M.

BY an inadvertent omission in the paragraph in our last issue referring to Mr. Pollock's visit to the East, it would appear that that gentleman had just started on his journey; whereas the intention was to state that he had just returned to his professional duties in England after a three months' absence.

AT the annual meeting of the Richmond Infirmary, a special vote of thanks was given to Dr. Warwick, who, in addition to his duties as honorary physician, has spent a great amount of time in raising funds to purchase the building, and in promoting the general welfare of the hospital.

THE deaths from small-pox in Liverpool rose last week to 90, and, excessive as the mortality from that cause was in London, it was far more so in Liverpool, where the ratio was equivalent to 9 deaths annually to every 1000 of the population, as compared with 3 per 1000 in London.

THE Census of England and Wales will be taken on Monday, the 3rd of April next, the enumeration having regard to all persons alive at midnight on the previous (Sunday) night. No person dying *before*, and no child born *after*, midnight to be enumerated.

WE regret to hear of the sudden death, on the 5th inst., at the age of sixty-eight, of Dr. William Keith, of Aberdeen, who has probably had the largest experience in lithotomy of any surgeon of modern times. We shall publish a memoir of Dr. Keith in our next issue.

BARON LIEBIG has so far recovered from his furunculoid affection as to be able to resume his lectures at the University of Munich. He is conducting the present course on experimental chemistry with all his old energy and effect.

THE Council of the Medical Society of London have nominated Dr. Andrew Clark as the President of the Society for the ensuing year—a selection which we feel sure will be thoroughly approved by the general body of Fellows.

DR. J. MURRAY, of the Indian (Madras) service, inspector-general of hospitals, has been permitted to retire on a pension of £550 per annum, with an additional pension of £350 per annum.

THE Hunterian Oration, which is now given biennially, will be delivered on Tuesday next, the 14th inst., at 3 P.M., by Sir William Fergusson, F.R.S., the President of the College.

IN consequence of the prevalence of the small-pox epidemic, the naval authorities have ordered all the cadets and boys throughout the service to be revaccinated.

DR. SHERIDAN MUSPRATT, of the Liverpool College of Chemistry, has just died.

DR. P. FRANK has been summoned from England to attend General Bourbaki.

THE QUEEN'S SPEECH.

HER MAJESTY has once more opened Parliament in person, and has thus again made her appearance in public as the visible Sovereign of these realms. The speech from the throne was one of unusual length, not to say prolixity; and although the Lord Chancellor, who read it, emphasized the statement that he was reading her Majesty's *own words*, we conclude that this was but a fiction, and that now, as on former occasions, the Queen simply gave her sanction to what had been written for her by Ministers. However this may be, the speech was one of evil omen as far as regards the topics in which our readers take especial interest. It would hardly be credited that, notwithstanding the appointment and report of the Royal Sanitary Commission, the Government could venture entirely to omit from their scheme of legislation any attempt to alter or improve the chaotic condition of the laws relating to public health. For another year at least, as far as Ministers care or will exert themselves, epidemics may continue to reign; and, independently of the possible casual prevalence of small-pox or scarlet fever, it is a matter of certainty that typhoid will claim its fifteen or twenty thousand victims. We do not envy the responsibility of those by whose supineness not only these deaths, but an additional untold amount of misery and sickness will, at least indirectly, be occasioned. We hear much, at various times, of Court influence upon Government; and, when we remember the loss which the nation suffered in December, 1861, by the unchecked diffusion of typhoid poison, it becomes surprising that a pressure said, now and again, to be exerted about trivial matters, should not make itself felt on this greatest of all national questions. Even England cannot afford to throw away the lives of her children, or to permit the unchecked physical deterioration of race by an accumulation of insanitary influences and conditions.

When the main subject of national health has been thus ignored, no better fate could be expected for that of medical education. The primary education of Scotland received a whole paragraph to itself; but that of the members of the profession in the three kingdoms was not so much as mentioned.

THE WAR.

THE COLLAPSE OF THE FRENCH MILITARY SYSTEM.

NOTHING was more extraordinary in the present war than the precipitancy of the French nation in commencing it, except their utter state of unpreparedness for sustaining it. From the first almost the French showed a lack of spirit, absence of dash, and want of resource; and spite of all the warnings they had received from the break-down of their medical service, and the melancholy inefficiency of their Intendance system in previous campaigns, no attempts were made to reorganise either of them. Jealousy, discontent, and conflicting interests and functions, reigned supreme where there ought to have been harmonious working and discipline. This stage in the mal-administration of the Imperial army was soon succeeded apparently by one of apathy and indifference. We have ascertained from an eye-witness that the condition of the French hospitals in Metz was bad in the extreme. There was no evidence of any attention having been bestowed upon the most elementary details of hygiene. Not only were the hospitals overcrowded, which was probably unavoidable under the circumstances of a besieged army shut up in Metz, but they were ill-ventilated, dirty and foul from want of care in removing the excreta of the patients. The same disregard of organisation was a striking feature in the management of military, medical, and sanitary matters inside Paris. We have been assured that the military arrangements for the removal of the wounded from the field, instead of being much better, were infinitely inferior to those of the aid societies and different volunteer ambulances. When the Paris "bill" of mortality comes to be known, the results will not be creditable to military surgery and hygiene.

INSIDE PARIS AFTER ITS SURRENDER.

We must refer to the communication from our correspondent in Paris for some interesting details of the effect of the limited food supply on the people. There can be no doubt that the distress in Paris is at present great, and that the fears as to its increase were well-founded. We have learnt that a military surgeon, who entered Paris shortly after its surrender with provisions, was much struck with the aspect of the hungry crowd that gathered round him. The urgent nature of the case, and the certainty that a starving population will soon become a prey to epidemic disease, would, we think, fully justify the Government, as a matter of national concern and interest, in taking steps to avert the threatening calamities. That it has already done something we know, although we do not know its nature. Meanwhile nearly £50,000 has already been subscribed to the Mansion-house Fund, for the relief of the distress in Paris. It is to the credit of the Prussians that they did all they could towards feeding the people. As an instance of the energetic exertions being made in this country we may mention that Messrs. Peek, Frean and Co. despatched last Saturday between ten and eleven millions of fine navy biscuits, weighing more than 700 tons, and occupying 10,500 packages. A correspondent tells us that there were about 10,000 wounded in Paris after its surrender.

THE VALUE OF PORRIDGE.

The venturesome correspondent of the *Daily News*, who succeeded in penetrating into Paris, soon after its surrender, on a fine fat charger, the sight of which made many a hungry Parisian's mouth water, gives a humorous description of his entertainment by Dr. Gordon. Our Military Commissioner was a boarder with one Unthank, who boasted that the worthy doctor, under his auspices, had lived better than any man in Paris. A fowl, for which Unthank had been offered 80 francs when it was a feathered biped, was brought up for dinner, and the correspondent to the *Daily News*, a Scotchman, like Dr. Gordon, shared with him his bicker of porridge and a tumbler of Scotch whisky. It appears that the discovery of a store of oatmeal had been made in Paris, and Dr. Gordon, being a man to the manner born of porridge, had been sustained better than others who had given themselves internal uneasiness by the consumption of stuff that bore the conventional name of bread.

THE PREVALENT DISEASES AMONG THE FRENCH SOLDIERS.

A Surgeon who has had unusual opportunities of seeing a large number of sick and wounded men in France, thus summarised his experience:—A rise in the patient's temperature is, of course, indicative of disease; and when it occurs you may pretty confidently expect small-pox, typhoid fever, or pyæmia, if the soldier be wounded.

THE GENEVA CONVENTION.

Count Bismarck, by way of illustrating the ignorance and indolence of the French, recently made it a subject of comment in one of his official utterances that the French surgeons showed a perfect ignorance of the terms of the Geneva Convention. If we may believe a tithe of the charges of barbarity, breaches of faith, and perfidy that the belligerents have performed one against the other, an amount of wrong-doing must have been perpetrated under cover of, or in spite of, this Convention which could only be

equalled by the crimes that, according to Madame de Staël, had been committed in the name of liberty. It appears pretty certain that some of the clauses of the Geneva Convention will be greatly modified, if not altogether abrogated; but we should extremely regret to see the day when the spirit of the Convention ceased to rule.

DR. RICHARDSON ON CHLORAL HYDRATE.

BEFORE commencing his lecture on Experimental and Practical Medicine on Tuesday last, Dr. Richardson offered some observations on the subject of Hydrate of Chloral, to which we would call the attention of our readers. He said:—

My lecture to-day is on Suspended Animation, but I will ask you to allow me first to offer a note or two on another subject, at this moment of urgent importance. I refer to the administration of the hydrate of chloral. There have recently been two assured deaths from the hydrate. In the course of the past ten days, I have myself been consulted not fewer than three times on what have been considered dangers attending the administration of the hydrate, and I know generally that doubt and uneasiness prevail in the profession respecting the abuse as opposed to the use of this agent. I think it right, therefore, as I had much to do in introducing hydrate of chloral into medical practice in England, to answer a few of the questions that are most pressing from this place, where so many demonstrations of the action of the hydrate have been carried out.

1. *Is the practice of resorting to the use of hydrate of chloral, as a narcotic, in the absence of medical advice and direction, becoming a common practice among the people?* The answer to this question is strictly affirmative. The novelty of its administration and of proving its effects at an end, the hydrate is not at the present time used so largely by the medical profession as it was a few months ago, when its true place in the Materia Medica was less clearly defined. The sale of the hydrate of chloral to medical men is consequently considered as declining, while the general sale is, perhaps, increasing. Corresponding with this state of things we, in the profession, are becoming conversant with cases of what may not improperly be called "chloral drinking," and in which serious and singular symptoms are presented. Three classes of people specially resort to hydrate of chloral—viz., alcoholic devotees, who take the substance to counteract excess of alcohol and to relieve alcoholic delirium; sufferers from neuralgia and other painful chronic diseases, who find in the substance temporary relief from pain; and persons having much mental worry, grief, or care, who, flying to it at first in order to obtain sleep, continue it until the occasional practice becomes a persistent habit. As an indication of the quantity of hydrate of chloral used in this country since its introduction here about a year and a half ago, I may state, incidentally, on what I have every reason to consider reliable authority, that one commercial house alone has supplied the English drug market with ten tons of the substance; three other houses have, it is supposed, supplied as much; so that fifty tons weight have been, on this calculation, sent out—an amount which, divided into grains, would yield over thirty-six millions of narcotic doses to England alone since August, 1869.

2. *What is a dangerous and what is a fatal single dose of hydrate of chloral?* The largest dose I have known to be taken is one hundred and twenty grains. This dose produced a prolonged and dangerous coma, but recovery ultimately followed. I think we may consider a hundred and twenty grains, as a maximum dose for an adult, dangerous, but not of necessity fatal. Beyond a hundred and twenty grains the danger increases, and a hundred and eighty grains may be considered a dose that would prove, in the majority of cases, positively fatal.

3. *What quantity of hydrate of chloral can be given with safety in divided doses during a stated period of time, say of twenty-four hours?* Judging from the physiological effects of hydrate of chloral in relation to dose, and to order of phenomena in relation to time, I should infer that the body cannot decompose and throw off the hydrate more rapidly than at the rate of from five to seven grains per hour. There will be difference according to age of person, the temperature to which the body is exposed after the dose has been taken, and the largeness of the dose, a small dose being disposed of quicker in proportion than a large one. But the variation is not such as to alter materially the rate of action from the estimate given. I should consider, consequently, that a hundred and twenty grains, administered, even in divided doses, in twenty-four hours, would be the safe limit of administration. In the treatment of tetanus this proportion has been exceeded, but not, I think, to the safety of the patient; for the fact that the hydrate of chloral overcomes or reduces the spasm is no safeguard against its own poisonous effects. From what I know, I conclude that the hydrate of chloral can be given to the extent of overcoming the severest spasm; but if the dose be carried too far, with the determination of removing spasm at all risks, the success may easily be bought at the expense of a fatal narcotism from the remedy.

4. *Does the frequent administration of hydrate of chloral lessen or increase the danger of the administration?* On this question I am forced to state that the frequent administration of the hydrate of chloral, though it may suggest greater confidence in it on the part of those who take it, increases the danger from an excessive dose. Hydrate of chloral differs from opium in this respect. Opium produces chronic symptoms peculiar to itself, but the dose may be steadily increased without any immediate danger from the increase. Hydrate of chloral cannot be used in this accumulative way without danger. In a word, although a person may become habituated to hydrate of chloral, there is a limitation of the quantity to be taken safely, which limitation is not materially modified by persistence in the habit of taking it, but rather the reverse.

After discussing three other questions, relating to the symptoms and pathological changes incident to the habitual use of chloral hydrate, to the chemical tests for the hydrate in cases where it has caused death, and to the post-mortem distinctions in instances of chronic poisoning by the hydrate and by chloroform, Dr. Richardson concluded by observing that, as the world was indebted to the profession of medicine for the benefits derivable from the hydrate of chloral, it behoved the members of the profession to use their influence in protecting the public from an agent which, under improper use, might be turned from its good purpose to positive evil.

ROYAL COLLEGE OF SURGEONS.

PROFESSOR ERASMUS WILSON'S LECTURES ON DERMATOLOGY.

LECTURE II.

MR. WILSON proceeded in his description of the several varieties of eczema, and directed attention, in the first instance, to a variety which had lately been well exemplified in a case under his care, and which deserved special recognition. It occurred in a man aged thirty-four, and assumed the erythematous form, consisting of puncta and small patches, seated chiefly on the body, but also on the limbs, and a uniform redness of the face, accompanied by itching generally over the body. The man had suffered from bronchitis, and certain liniments of a stimulating kind had been used, when the eruption broke out suddenly all over the body, and the neuralgic pains of which he complained in the chest subsided. The patches were made up of coalesced puncta, and were some one inch in length and two or three lines broad. The patches were abundant on the back, but slightly raised, uniformly red, some vividly so, and without desquamation or exudation; in fact, the case was one of monomorphic eczema. The patches were directed with their long diameters pointed downwards from the spine, then sweeping upwards to the front; indeed, the patches were disposed in lines corresponding to the course of the anterior spinal nerves, like zoster, or the spots of the leopard or tiger. Ten days subsequently the skin desquamated, and the disease left behind small circular patches, having the characters of eczema erythematosum orbiculare and circinatum, referred to in the former lecture.

Mr. Wilson then described eczema papulatum in its several

aspects, in the congested, corymbose, and confluent forms; the confluent form being produced by the union, by congestion and infiltration, of the interfollicular portions of the skin. In the papulous eczemas, the presence of papules was the chief mark, but the other characteristic features might be present—e.g., infiltration and crusting, or fissures exuding ichor, when what was called by Willan lichen agrius was present. The polymorphic form and the tendency to exudation marked the latter condition as not different from eczema. Attention was next directed to several models of eczema nummulare, and E. papulosum circumscriptum. The lecturer remarked that the development of the papules in groups was according to law, and took place under the influence of the nerves. He further observed that if it were said the various terms used to designate the several varieties of eczema were of no practical import, it might be replied that dermatologists are observing nature, and need scientific designations: whilst they reminded us that the same eruption was modified by locality, constitutional condition, and other circumstances, and their employment prevented us from error in diagnosis, enabling us to observe the relations of diseases that might otherwise be regarded as distinct affections, as in the cases of eczema exfoliativum and lichen agrius. The Willanean type of eczema vesiculosum was next described, and the difference between dry and moist eczemas accounted for by the presence or absence of œdema, the latter giving rise to the outpouring of fluid with vesiculation, or free oozing from an abraded surface. In the young, and the lymphatic, fluid exudation was observed; in the old, and subjects deficient in fluids, the eczema was of the dry variety. There is nothing specific in the vesiculation or the discharge of eczema, it was contended. The doctrine Mr. Wilson wished to impress on his hearers was that eczema is a simple inflammation of the skin, with variety in its manifestations, due to peculiarity of structure of the surface, constitution of the patient, and duration of the disease; that it might consist of hyperæmia, and exfoliation or ichoration and incrustation in addition, in consequence of the occurrence of exudation. Hence there were two main forms, moist and dry. The hyperæmia might affect the papillary plexus or the follicular plexus or both; it disturbed the nutrition, hence the exfoliation of cuticle. If exudation occurred the cuticle was raised into vesiculation, or there might be free oozing or abundant discharge of fluid of different characters, serous or purulent. The word "catarrhal" had been applied to eczema, which had been called catarrh of the skin, and this designation was no doubt correct. Lastly, Mr. Wilson gave a description of eczema squamosum, and pointed out that in chronic eczema of this kind the appearances of eczema erythematosum orbiculare and circinatum could be readily discerned in many cases.

The excellent models of the Dermatological Museum, and coloured enlarged drawings used in illustration by the lecturer, were all that could be desired to give due effect to his verbal description.

MEDICAL REPORT OF THE SMALL-POX AND VACCINATION HOSPITAL FOR 1870.

Presented to the Annual General Court of the Governors, held on Friday, February 3rd, 1871.

THE year 1870 will be memorable in the medical history of the nineteenth century. It has been marked by an epidemic of small-pox of peculiar severity, which has found the population of this metropolis very inadequately protected by vaccination; and, therefore, but little prepared for such a visitation. A much larger proportion of the population has been attacked by small-pox in the course of the existing epidemic than has ever occurred in the memory of the present generation. The epidemic of small-pox continues, and is extending. Each succeeding week it becomes more widely diffused, and the number of persons attacked is greater.

Small-pox was epidemic in London during the whole of 1870. Judging from the monthly admissions of patients into the Small-pox Hospital, the epidemic may be assumed to have commenced in November, 1869. The rise and increase of the epidemic, during at least a portion of its course, will be shown by the monthly admissions into the Small-pox Hospital. For the last three or four months of the year, however, our admissions give no adequate idea of the prevalence of small-pox. Owing to the crowded state of our wards during the months of October, November, and December, large numbers of applicants have of necessity been refused admission; and although additional hospitals have been opened in various parts of the metropolis, and the accommodation for small-pox patients has been enormously increased, it has been found insufficient to meet the requirements of the epidemic. The minimum of admissions into the Small-pox Hospital in 1869 was in the month of August, when they were only twenty-eight. At that time small-pox was sporadic only, and epidemic influence had not yet come into operation; it may serve, therefore, for a standard of comparison with the months that follow.

The monthly admissions of patients into the Small-pox and Vaccination Hospital have been as follows:—August, 1869, 28; September, 31; October, 34; November, 51; December, 52; January (1870), 79; February, 66; March, 73; April, 83; May, 112; June, 112; July, 113; August, 89; September, 108; October, 144; November, 159; December, 178.

In the year 1870, 1316 patients were admitted into the Small-pox Hospital. Of these, 1285 were suffering from small-pox, and 31 from various forms of eruptive or febrile disease, not small-pox, but assumed to be so, and on such assumption sent to the Small-pox Hospital. Of these 31 cases, 3 died. Of the 1285 cases of small-pox, 962, or 74·9 per cent. of the whole cases, had been vaccinated, and 322 were unvaccinated. One patient was said to have had small-pox previously, and that case recovered. Of the 962 vaccinated cases, 76 died, giving a mortality of 7·9 per cent.; whilst of the 322 unvaccinated cases, 124 died, being a mortality of 38·5 per cent. Six of the deaths, 5 in the vaccinated and 1 in the unvaccinated class, were due to gangrene or some other form of superadded disease. Upwards of 30 patients admitted last year are still in the hospital, and of these several are in great danger.

The general mortality for the year 1870 has been 15·4 per cent. The high death-rate of the last year was due in part to the unusual severity or malignancy of the disease, and in part to the number of children suffering from small-pox who have been received into the hospital. Ten years since—namely, in 1860—7·37 per cent. only of the whole admissions were children under ten years of age. As will be anticipated, the greater proportion of these were unvaccinated, and amongst them the mortality was 33·8 per cent. In 1870 more than 16 per cent. of the whole admissions were children under ten years of age, and the mortality amongst those of them who were unvaccinated was as high as 42 per cent.

Not a single fact has occurred within our experience at the hospital during the past year to shake our confidence in vaccination when properly performed, or to detract in any degree from that high estimate of its value which many years' experience in the wards of the hospital and a close study of small-pox have led us to form. But vaccination is an operation of considerable delicacy, and requires much care in order to secure the advantageous results it is capable of imparting. The failures of vaccination to prevent *fatal* small-pox which have occurred are almost all of them due to the careless and imperfect manner in which it has been practised.

In the present state of the population revaccination is of scarcely less importance to the adult than is primary vaccination to the infant. A very large number of the adult population of this country are without adequate protection from vaccination, and are liable to take small-pox in its gravest and most deadly form. All persons who have not already had small-pox, and have been or are likely to be exposed to the infection of that disease, and all who have not several (at least four) good marks testifying to the character and efficiency of the primary vaccination, ought to be revaccinated. Revaccination has proved itself to be a most important and efficient means of preventing small-pox. For upwards of thirty years all the nurses and servants at the Small-pox Hospital who had not previously had small-pox have been revaccinated before entering on their respective duties, and in no one instance has it failed to preserve them from small-pox. We believe, therefore,

that revaccination extensively practised, and with the same precautions to ensure efficiency as ought to be observed in primary vaccinations, will prove to be the most certain mode that could be adopted of checking the present epidemic of small-pox.

Three hundred and sixty persons have been vaccinated at the hospital during the year, and 580 charges of vaccine lymph have been supplied to the medical profession at home and abroad.

WILLIAM MUNK, M.D., F.S.A.,
Physician to the Hospital.
J. F. MARSON, F.R.C.S.,
Surgeon to the Hospital.

THE NEW CONVALESCENT SMALL-POX HOSPITAL IN MARYLEBONE.

ON Monday last a new iron hospital, erected on the St. Marylebone parochial stone-yard, was opened for the reception of convalescent cases of small-pox. The building is constructed of corrugated galvanised iron, and lined throughout with match boarding. Between the iron and the boarding the whole of the roof is covered with inodorous felt, which adds materially to the warmth of the building, and deadens the noise of the rain falling on the roof, which has in similar buildings been a source of great discomfort to patients. The building, which cost 300 guineas, and was completed within the extraordinarily short time of five days by Mr. Kent, the contractor, is well ventilated by windows placed opposite to each other and by openings in the roof, and the admission of air admits of being properly regulated. A stove is placed in the centre of each ward, by means of which a temperature of 60° F. can be obtained, and maintained even in the coldest weather. The amount of space contained in the building is 35,000 cubic feet, which will give to twenty-six patients (the number which Dr. Whitmore purposes to admit) about 1400 cubic feet each.

Dr. Whitmore has considerately supplied for each patient a comfortable hospital suit. The beds and bedding are excellent of their kind, and the whole aspect of the building is one of great comfort and cheerfulness.

The Vestry, under whose sanction and authority the building has been erected, are entitled to credit for the prompt provision which they have made to meet the emergencies created by the outbreak of the present epidemic, and the readiness with which they have seconded the efforts of Dr. Whitmore, under whose personal control and direction the new building has been erected.

Correspondence.

"Audi alteram partem."

CAN THE DEAD CONVEY INFECTION?

To the Editor of THE LANCET.

SIR,—Dr. Wilks's letter in your last number, relative to the carriage of infection by the dead, in which he states his opinion, "framed from negative evidence, that all fear from contagion ceases with death," induces me to call attention to what took place many years ago at the Anatomical School in Great Windmill-street, and leads me to abstain from sending the bodies of those who die of small-pox to the Schools of Anatomy. The history of what occurred will be found in a letter from Mr. Cæsar Hawkins, in volume iii., page 282, of *The London Medical Gazette* for January 31st, 1829. It is briefly as follows:—"A body of a man was brought to the School in Great Windmill-street, who appeared to have died of confluent small-pox. It was injected with the usual saline solution, and kept in an outer room for some days, when it was taken into the dissecting room for about two hours on two successive days. "For about ten days, therefore," says Mr. Hawkins, "it might have been possible for the contagion of small-pox to be exerted, which probably was the case, as within a short time four gentlemen have gone through the disease." One of them merely saw the body without approaching near it, but it excited a great feeling of disgust at the time; another went near it, but did not actually touch it; a third had been in the habit of frequenting the Small-pox Hospital and making drawings of the disease as short a time as three months before he actually received the disorder; a fourth had touched it with his hands. Three of these gentlemen had the disease mildly; the fourth had it in a rather severe form; he had been vaccinated and had a good cicatrix.

I take the liberty of recommending that Mr. Hawkins's communication be read before it is decided "that all fear of infection ceases with death."

I am, Sir, your obedient servant,
Savile-row, February 7th, 1871. CHARLES HAWKINS.

To the Editor of THE LANCET.

SIR,—In reply to Dr. Wilks's letter on this subject in THE LANCET of last week, I beg leave to inform you that in the spring of 1838 four students of the London Hospital, including my brother and myself, took small-pox from a subject brought into the rooms. For myself, I had no fear of infection or contagion, and no expectation that dissection would be attended with so unpleasant a result. I had no punctured wound, and was not exposed to any other source of infection that I was aware of.

To those who advocate the plan of vaccinating in a multiplicity of places, it may not be amiss to remark that I have two vaccination marks, and two only, still distinctly visible, placed where they ought to be, one a little above the insertion of the deltoid muscle in each arm, and that these two places of vaccination sufficed to secure to me a modified and mild attack of the disease.

The prejudice and objections which still prevail against vaccination arise from (1) the uncertainty of its protective influence, and (2) from the occurrence of undesirable sequelæ, both in the form of unnecessary disfigurement and of deterioration of health. The uncertain protection of vaccination ought always to be proved by revaccination, and by Bryce's test if practicable.

The place vaccinated should always be carefully selected, especially in girls, and especial care should be taken to vaccinate with lymph from a normal vesicle, on the 5th, 6th, or 7th day, before the lymph has become in any degree purulent. Some infants undoubtedly suffer much from vaccination, and become deteriorated in health. In such cases I have given from ten to twenty drops of brandy, or, better still, of compound tincture of cardamoms, twice or three times a day for a few days, with decided benefit.

Lastly, it has occurred to me that the judicious exhibition of coloured drawings or photographs of the very loathsome disease that small-pox is, would do more to remove existing objections to vaccination than many proclamations and Acts of Parliament. People see and feel the minor evil of vaccination, but the large majority are ignorant of the greater evil of small-pox; and do not readily comprehend how the lesser evil, which they do see, can avail against the greater evil which they have never seen.

I am, Sir, your obedient servant,
D. DE BERDT HOVELL.
Five Houses, Clapton, Feb. 4th, 1871.

THE EMPLOYMENT OF MERCURY IN HEPATIC DISEASES.

To the Editor of THE LANCET.

SIR,—It is not my intention to interfere in the controversy that has arisen between Professor Bennett and Deputy Inspector-General Rutherford, C.B., further than to give certain explanations which seem required at my hands.

1. Dr. Bennett has been led into grave error by a false statement on the part of the discharged soldier, Nicholas H——, to the effect that when he was a patient in the Royal Victoria Hospital in 1867, "the ointment of the biniodide of mercury was rubbed over his liver twice daily for two weeks." Dr. Bennett has seen fit to repeat this

story again in your issue of the 4th inst., although Dr. Rutherford, at a meeting of the Medico-Chirurgical Society of Edinburgh, when Dr. Bennett was present, contradicted it on my authority in express terms. For years past this ointment has been used by me, and others acting under me, to reduce the enlarged spleens so common in the malarial cachexia, and a large number of competent witnesses have seen the signal success that has followed the use of the remedy. The constitutional action of mercury has not in a single example supervened. I need hardly say that it is never used by us in the reckless manner of which we are accused. In fact, we follow the method that has been found almost invariably successful in the treatment of goitre in India. The ointment is applied over the affected organ, in small quantity, a piece the size of a nutmeg being rubbed in with an ivory spatula before the fire. The same quantity is lightly smeared over the same surface in the evening, *and the application is not repeated for ten days.* Sometimes two applications suffice, in other cases three, or even four are needed, but always at long intervals. It is hardly necessary to say that had this ointment been used in the manner Professor Bennett describes, severe salivation must quickly have ensued, not "after he left Netley," but while there. The simple fact is that the remedy was used over the enlarged liver of Nicholas H—— in the manner described above, while at the same time he was placed under the general restorative treatment usual in this hospital in like cases, and which was described in my letter to Dr. Rutherford.

2. As for the statement that two pots of the ointment were given to the patient when he left Netley, I can only say that I have no knowledge of the fact, nor can I find any record of it in this house. It is, however, possible that he may have taken the supply at his bedside away with him. Of this I am certain, no one in this house ever directed him, on leaving Netley, to use the ointment "twice and even thrice daily." If he was foolish enough to do so, as he is said to have done, it would account for the signs of mercurial action observed by Dr. Bennett without a shadow of blame attaching to anyone here. I am given to understand that Dr. Bennett brought the man before the Society in Edinburgh at the last meeting, but I beg your readers will note the fact that Nicholas H—— was discharged from Netley in 1867.

3. I cannot conclude without touching on the general question of the use and abuse of mercury in the army. Fortunately, what is said and done at Netley is not said or done in a corner. If need were, a cloud of witnesses can bear testimony to the fact that nowhere has the danger of mercury, in the treatment of tropical diseases, been more insisted on than here, and I am in a position to say that in this house the fact that mercury is not abused in the treatment of disease can be established and put beyond the reach of doubt. Dr. Bennett denies that he brought any charge against army medical officers of this kind. It is not for me to attempt to reconcile the following passages in Dr. Bennett's letter. "The case I have related is not a solitary one. Thousands of our soldiers have been so treated, and many thereby, instead of recovering, as in this instance before us, have had their healths irretrievably shattered." This was the language used by Dr. Bennett at the meeting of the Medico-Chirurgical Society in Edinburgh. Dr. Rutherford, naturally enough, called the speaker to account for it, and Dr. Bennett, in reference to the passage quoted above, thus expresses himself in his letter to THE LANCET:—"No one but Dr. Rutherford would have imagined that I charged army practitioners with continuously poisoning their patients affected either with syphilis or hepatitis by means of mercury. I never alluded to the practice of army surgeons in any way." To whom then did Dr. Bennett allude? Army surgeons are the only practitioners who treat the diseases of soldiers, and if they are not responsible for the dire effects described, will Dr. Bennett be good enough to say who are?

Now this is a subject, not of professional interest merely, but of national importance, about which the public have a right to know the truth. Into the Royal Victoria Hospital are received all soldiers sent from all the foreign possessions and colonies of the Crown on account of their health. The hospital has been open for eight years, and 29,543 men have passed through the hands of its medical officers. Every unit in this great total has been carefully examined before discharge to duty, from the service, or before and after death, by men who are thought by the authorities competent for such responsible duty. When anything is found amiss, the same is reported to the Director-General, no matter who may be inculpated. If mercury was used in the treatment of diseases in the army in the manner Dr. Bennett apparently wishes his pupils to believe, the evidence of the practice must be found here, and the medical authorities at Netley are in a position to say positively that no such evidence exists.

I am, Sir, your obedient servant,

Royal Victoria Hospital, Netley, February 6th, 1871. W. C. MACLEAN.

To the Editor of THE LANCET.

SIR,—I have perused Dr. Bennett's letter in your issue of the 4th instant, and will feel obliged by your insertion of the following remarks, which I consider pertinent thereto.

The controversy between the above-named gentleman and myself is shortly as follows. At a meeting of the Medico-Chirurgical Society of this city, held on the 21st December last, at which I was accidentally present, Dr. Bennett read a paper "On the Injurious Effects which may follow the Use of Mercury in Hepatic Affections," illustrating his subject with the case of a discharged soldier, upon which case he founded many of his remarks, and from which he drew the conclusions I demurred to. It was stated that this man had suffered from various diseases in India, including that of the liver, the latter culminating in abscess in 1866; that for its treatment in the years 1866-67 he had undergone no fewer than three courses of mercury; that, in fact, for nearly one year he had been kept almost uninterruptedly more or less under its influence, in consequence of which his teeth had become loose, his deglutition interfered with, and his digestion impaired; that meantime a seton had been inserted over the hepatic region, through the openings caused by which the contents of the abscess in due time partly escaped, part of it finding exit into the intestinal canal. About the beginning of 1867 he was invalided, arriving in England on the 31st of May of the same year, when he was admitted into Netley Hospital, where he was again salivated, apparently from the use of an ointment of iodide of mercury rubbed over his side; that after about a month's detention there he was discharged the service, and made his way into the Infirmary in this city, where he came under the care of Dr. Bennett. As may be imagined, he was reduced to a very low state. His liver and spleen were much enlarged; a thick crop of rupiæ, with numerous ulcerations, especially posteriorly, existed—so numerous were they that he suffered much from the difficulty, if not impossibility, of lying on his back. He had an affection of one testicle, and was also afflicted with rheumatism. The physical symptoms of phthisis were present, indicated by dulness under one clavicle, with resonance of the voice, cough, and muco-purulent expectoration. The skin complication had a somewhat syphilitic aspect, but this could not be the case because the man stated that he never had the primary disease, although admitting that, when fifteen years old, he had contracted gonorrhœa; besides, an examination made in the Infirmary failed to detect any cicatrix on the penis, the only marks in this way visible being those left by the seton. It was subsequently announced that thousands of British soldiers were rendered unfit for service by similar treatment, *or words to that effect.*

This is as near a recital of the alleged main facts of this remarkable case as I gathered them at the time, and as I noted them immediately after the meeting. Next morning I submitted them to Dr. Leitch, who was present at the meeting, asking him if he considered the statement was a fair and honest account of the main facts as he heard them the previous evening. He said he so considered it, expressing at the same time his surprise or wonder at my having recollected them so minutely.

These allegations appearing to me to reflect most injuriously and unjustly upon the professional characters of the medical officers of the army, I promised to obtain all the information I could from official sources, and lay the result before the meeting as soon as possible. This promise I fulfilled on the 18th of last month. On that occasion I laid before the Society (*a*) the statement of the man him-

self, made to me in the Castle on January 5th, and made, I believe, when quite unaware of the cause of my inquiries. (*b*) The written statement of Dr. Corbett, Rifle Brigade, under whose charge the man had been in India, from April 1865 until towards the end of 1866, including nearly all the time he was stated to have been maltreated. (*c*) The medical history sheet, or rather certified copy thereof, and other official documents, all totally silent as regards the exhibition of mercury in any form to this man; and, finally, the written statements of Inspector-General Dr. Beatson, the principal medical officer at Netley, and Dr. Maclean, Professor of Military Medicine in the same establishment regarding his treatment there. The man's statement and the documents (*b* and *c*) so exactly dovetailed into and corroborated one another, that no reasonable man could deny their cogency, and no other conclusion could be drawn from them than that no mercury had been administered to this individual during the period he was stated to have been saturated with it. The following is the substance of the man's medical history in India, as given to me by himself in presence of Surgeon-Major Dr. Leitch. In Jullunder, in 1865, he was attacked with liver complaint; was in hospital for it on several occasions, and, finally, in April, 1865. Was sent for change of air to Kussowlie, where the abscess appeared. Remained in bed seven months, and had a variety of treatment: Poultices to the side; tincture of iodine to same; "medicine from a bottle with a bitter taste," "what, he thinks, was called taraxacum in pills"; occasionally opening medicine. He had good diet, with chicken. He "had anything in this way he wanted." When able to be moved he "was carried round the cuds (ravines, for change)." "If I had been the king they could not have done more for me." On asking him to try and recollect if any other medicine had been given him, he said he could not recollect any more. I asked him this more than once, giving him full time to collect his ideas, and always with the same result. Not one word was said by him regarding mercury, the above were the "chief medicines" given him. On asking him if his mouth was ever made sore in India, he declared distinctly, and several times, that "the only time his mouth was made sore, in *India or anywhere else*," was in Jhansi. He said that one afternoon he had a sudden attack of purging and vomiting. Was taken to the hospital, where he had two pills from a native, a compounder, afterwards a draught; that he became better, and on the following morning his mouth was very sore; that "the flesh" came away in pieces; that early the same morning he was seen by Dr. Richardson, as he called him, who, when he saw the state he was in "was very angry, and scolded the apothecary." Did not hear what he said. After some days his mouth became well, and he never spat. Was never salivated. He was too ill to recollect if he was seen by a doctor before he had the pills. Does not know if the latter were ordered by a doctor. He mentioned, moreover, that at the same time several men were similarly attacked, and that a report circulated that the cooking vessels (copper) were foul. The doctor inspected them, and they were all immediately retinned! He remained at Kussowlie from April, 1865, till towards the end of 1866, when he left for Calcutta to go to England. The abscess of the liver did not burst into his bowels. He readily admitted having had a sore or "scratch" on the penis, in Jhansi, a fact corroborated by his medical history sheet, from which it also appears that the treatment was "non-mercurial," and that he was in hospital on two subsequent occasions for "bubo," and once for gonorrhœa.

Returning to Dr. Bennett's letter of the 31st of January, it seems to me strange that, while stating that I "attempted to support" my statement by certain documents from Netley, no allusion whatever is made to the above facts and circumstances. We are told that, in 1865, "he had ague," and that "gradually an abscess formed in the liver, for which he was treated in *various* places by *different* medical men." He was *then* sent to Kussowlie. The man himself says, and his statement is corroborated by Dr. Corbett, that the abscess *first* appeared at Kussowlie, and it is obvious he was not treated "by different medical men" for this complication, but by Dr. Corbett, who says, "He was under my immediate care from the time of his arrival until his departure for England."

With regard to the different and contradictory statements given by the man as to the so-called mercurial treatment he was supposed to have undergone, I think it will be only too obvious that no reliance can be placed in them, unless such statements be supported by other undeniable testimony.

Further on in his letter Dr. Bennett remarks that "his general aspect was miserable and cachectic in the extreme." No wonder! Did anyone ever see a man recovering from an hepatic abscess which had burst externally, and, as we were informed, internally too, whose liver and spleen were much enlarged, who laboured under a severe and painful skin disease, with rheumatism, and an affection of a testicle, and who, moreover, "had a severe cough, with purulent expectoration, and all the symptoms of *incipient* phthisis pulmonalis," other than miserable and cachectic? Notwithstanding all these grave symptoms, we are told "he became gradually better, and at length quite well," a circumstance no doubt very flattering to the means employed, but not corroborated, unfortunately, by the man himself (and in this, I think, he may be believed), who told me that at this period he "improved a little, and then fell back again"—a circumstance also apparently inconsistent with what we are told in Dr. Bennett's letter, a little further on—viz., "after leaving the Royal Infirmary of Edinburgh in 1858 (*sic*), he informs me he was in the hospital of Cork for four months."

With reference to the statement made by Dr. Bennett that thousands of British soldiers were rendered unfit for service by the abuse of mercury, or words to that effect, what further proof of its utterance need be adduced than that contained in the substantially correct account given in THE LANCET of the 28th ult.? in which it is said that "he (Dr. Bennett) in conclusion, begged to say that he had no wish to offend in any way his medical brethren in the army; at the same time he was of opinion that it was a notorious fact, as stated in his paper, that thousands of British soldiers had been rendered unfit for service by the abuse of mercury." Surely this testimony, given thus publicly, and by an impartial and disinterested witness, cannot be questioned or reasonably doubted. Moreover, when the statement was called in question by me immediately after its utterance on the 21st of December, Dr. Bennett led me to infer that instead of "British soldiers" he had said "individuals." I replied, "No; the former were the expressions, but that if by the latter term he meant 'civilians,' and that thousands of them had been so injured by mercury given by civil practitioners, I had nothing more to say." All present heard the observation and appeared to applaud it. Here, then, was the opportunity for explanation, and the removal of any doubt which may have existed as to the meaning of the obnoxious remark. No such explanation was attempted. Again, if any doubt could exist on the subject, it was completely removed on the 18th of January. When I was in the act of reading a portion of the report of Mr. Skey's committee (pp. 4, 5), referring to somewhat similar statements made so frequently by the late Dr. Macloughlin, which statements the committee pronounced as "wholly unfounded," Dr. Bennett said that he (Dr. Macloughlin) was "quite right." Did not that fully endorse all that the latter had said on the matter? Doubts were thrown by him upon the composition and decision of this Commission; it was spoken of as a kind of packed or partial body, an army board, or army medical board, &c., to disprove which I read out the names of all the members. They were said to have gone wrong, and to have "stultified" themselves, &c. Whatever may have been the composition and effects of the two pills given to the man in Jhansi, in 1862, by a native compounder, is quite outside the question, as they were evidently not given for any hepatic disease, much less hepatic abscess, and hence have nothing to do with the main facts of this case, which were limited in Dr. Bennett's original observations to one year or less—namely, 1866 and 1867. "The skin disease in this case, regarded as a mercurial eczema, conjoined with rupia," Dr. Bennett informed the meeting of the 18th of January, he had pointed out to his class as "identical with secondary syphilis," whatever that may mean.

Dr. Bennett complains that before the meeting of the Society on January 18th I "declined to show" him the documents I received from Netley, and at the above meeting quoted a portion of a sentence of a letter of mine in reference thereto, in which I said that I did "not con-

sider myself authorised" to accede to his request. All very true; but his statement was partial, for he forgot to add the very important words, "without *the direct sanction*" of the authorities, by whom they were forwarded to me! They were sent to me, not for his perusal to convince him, but simply to enable me to rebut his statements by laying them *in extenso* before the meeting, at which he did look at them, and found that not a word was contained in any of them of mercury having been administered in India to this individual!

The concluding paragraph of Dr. Bennett's letter commences with personalities and ends with two of his so-called facts; of the former, of course, I take no notice. With regard to the allegation that I "did not scruple to throw every contempt on the memory of my late brother officer, Dr. Macloughlin," I utterly disclaim any such intention or any statement which can be tortured into such a form; and whatever expressions of contempt Dr. Bennett may have discovered in any words of mine, he may rest assured they were only intended for the individual who may have deserved them, and not for the memory of a gentleman whom, on introducing his statements to the meeting, I spoke of as, "Although not a professor, a member of the Legion of Honour, and in many particulars an estimable man."

Your readers will judge of the correctness of the statement that he was "a brother officer" of mine, when they are informed that Dr. Macloughlin became disconnected with the army when George III. was king, whereas Her Majesty's service was entered in 1841 by,

Sir, your very humble servant,

Edinburgh, February 7th, 1871. W. RUTHERFORD.

To the Editor of THE LANCET.

SIR,—To prevent misapprehension, allow me to say that THE LANCET report of the meeting of the Medico-Chirurgical Society, held on the 18th of January, is a correct report. It agrees with the Minutes of the Society, and was copied from careful notes taken at the meeting.

I am, Sir, your obedient servant,

Edinburgh, Feb. 7th, 1871. YOUR REPORTER.

IRELAND.

(FROM OUR SPECIAL CORRESPONDENT.)

TYPHOID FEVER AT KINGSTOWN.

THIS favourite watering place, situate only six miles from Dublin, has lately been visited by an epidemic of typhoid fever of a very malignant type. Numerous deaths have taken place within the last few weeks, and several parties resident in the place have left their houses in consequence of the widespread feeling of alarm which has arisen relative to the prevalence of fever. On an investigation being made it was found that the outbreak arose from the water-pipes becoming contaminated by the leakage of a water-closet, thus accounting readily for this epidemic of enteric fever. It must, however, be confessed that it is a mystery how Kingstown has so long escaped a visitation of this kind, considering the way the drainage is removed from the township, which is by pipes which carry it into the sea, but only for a short distance; the consequence is that, when the tide is out, the effluvium is none of the best, and in hot weather is most disagreeable. Besides this, the houses in this town, which is inhabited by about 20,000 persons, are badly constructed, so that there is scarcely a house which, in a sanitary point of view, is up to the mark. Another cause of sickness existed until the last few months, when the Vartry water was introduced; previous to this the supply of water was very uncertain and its quality bad, being highly charged with organic matter. At present a great deal remains to be done—amongst the rest, by carrying the sewerage pipes to a greater distance than they are at present constructed, so as to prevent any tainting of the air when the tide is low. The sanitary inspector also, if there is one, should thoroughly overhaul all houses, and see to the abatement of all nuisances. Besides this the individual owners of property, for their own sakes, as well as out of regard to sanitary laws, should examine the sewerage of the houses they may possess, and at once remedy anything that may be wrong.

BRONZED SKIN.

A case of this curious malady was lately detailed by Dr. Moore at the Pathological Society of Dublin, adding another to the list of cases in which there was no disease of the supra-renal capsules. The patient was a woman, aged sixty-two, who presented all the symptoms of this disease in a marked degree. After death tubercles were found in the left lung and mesenteric and lumbar glands. The supra-renal glands were small, but presented no adventitious deposit either to the naked eye, or on examination with the microscope.

PRESENTATION.

On the 24th ult., an influential deputation of the inhabitants of Lurgan and surrounding districts waited on Bindon Burton, M.D., to present him with an address, and horse, croydon, and harness, also a purse of sovereigns, as an expression of their admiration of his worth, and as an evidence of the esteem in which he was held by his numerous friends.

BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

The annual meeting of the subscribers of this most excellent and important society was held on the 1st inst. in Belfast. The proceedings of the last annual meeting having been read, and the accounts audited, the following were elected a committee of management for the ensuing year: Drs. Drennan, Harkin, James Moor, Cuming, H. S. Ferguson, Magee, Whitaker, Wilberforce Arnold, Spearing, Musgrave, Malcomson, Keown, Filson, and Ross. Treasurer: Dr. Brown, R.N. Honorary Secretary: Dr. Stewart. Dr. James Moor was requested to act as a deputation in visiting country districts not hitherto giving any aid to the society, several of which were referred to as having a number of practitioners living in them, but none of whom were subscribers, and whose support it was hoped he would be enabled to obtain for the future. A deputation having been appointed to attend the ensuing annual meeting of the parent society in Dublin, the thanks of the members were tendered to Dr. T. H. Purdon, the president, for the more than ordinary zeal and attention with which he gave the benefit of his services to the society, and the practical proof he evidenced of his desire to further its most beneficent and disinterested objects by large annual donations and subscriptions.

SMALL-POX IN BELFAST.

In consequence of the prevalence of this disease, the committee of the Belfast General Hospital have fitted up and appropriated five wards, detached from the main buildings, exclusively for the reception and treatment of small-pox patients. Two of these wards can be used by private patients who pay for the accommodation.

THE CONDITION OF PARIS.

(FROM OUR OWN CORRESPONDENT.)

THERE can now, I think, be no risk that, in addressing you, information which had better be concealed would reach the authorities around the outside of this city. I am, therefore, induced to despatch this brief communication, chiefly because the profession in England may be supposed desirous to learn a few particulars regarding the phenomena of partial starvation on a large scale, such as is at present taking place in this once luxurious city. Several weeks have elapsed since other meat than horseflesh has been issued,—for all here are on rations. Now and then a small quantity of preserved meat, of salted meat, of cheese, of salted fish, and so on, has been distributed; but such occasions have been few and far between, and the quantities given out uncommonly small.

The actual ration per head is now, and has been since the 19th of January, 30 grammes of horseflesh and 300 grammes of bread per adult; the young and growing receiving smaller quantities than these. And to each person in pecu-

niary need, and unable to pay for *vin ordinaire*, the fifth part of a litre is also given. The bread consists of a mixture of wheaten flour, rye meal, rice, and oatmeal; and so that no favouritism should be shown by bakers, the whole is mixed before being issued to them. Of yeast there is apparently none, for the loaves are heavy and unraised, in addition to being dark and uninviting in appearance. The bread itself, however, is by no means unpleasant to the taste, although both in nature and quantity unsatisfying to the appetite.

On such materials and on such quantities thousands now in Paris have been obliged to live as best they could. The flesh of dogs, cats, rats, &c., has, it is true, been eaten. Many animals little used as food in Europe or in England have been similarly disposed of, including camels, elephants, kangaroos, and ostriches. Some have proved undoubtedly good, but all so dear as to have been beyond the means of the ordinary classes, even the flesh of dogs costing two, and often three, francs per pound.

The general result, then, of the present siege is that the mass of the population of Paris is literally more than half starved—that is, so reduced in condition that the physical power of individuals is diminished to that extent as compared with the usual standard. Different persons are affected in different ways. For weeks past food, and the partial want of it, have served as subjects of conversation hardly if at all less in interest and importance to us than even that of the bombardment of the city. To the very young, the old, to mothers nursing, to the sick, and to the wounded, the privations have been especially trying, and among each of these classes the mortality has been great. To the otherwise healthy, low diet has, in most instances, induced more or less indigestion and irregularity. Some persons begin to complain of loss of appetite, but the great majority express a craving for a full meal of animal food. All have fallen off in flesh; some to a great extent; and even those who in other respects do not apparently suffer in health, express an inability to perform their ordinary work without experiencing immense fatigue. The secretion by the kidneys has increased. Men complain of requiring a larger quantity of clothing than usual. Many are unable to sleep so well as usual at night, and many experience a desire for wine that previously was strange to them. Delicate women have in several instances become attacked by what they think is "fever and ague," and naturally fail to obtain from quinine the effects that beef-steaks would best produce; others are languid and disinclined for exertion.

The mortality among the wounded and those subjected to operations has been very great. Various causes are at work to produce this. Among them is, undoubtedly, insufficient meat—both for the men prior to being wounded, and especially after being so. Even the hospitals have been insufficiently provided in this respect.

It is almost useless to tell you that there has been much that is important to observe here during the active proceedings of the siege, and that much more that is also important, although in a different way, still remains to be seen. Time and space will only permit me to say that for the most part I have met much civility and courtesy here, and that in many instances members of the profession have taken personal trouble to facilitate my inquiries. With regard to present conditions, let the fact be borne in mind that the immense scale upon which wounded have had to be provided for has severely taxed the powers and energies of the Paris surgeons, and that several of their number have fallen victims to their devotion.

Paris, Feb. 1st, 1871.

Obituary.

THOMAS MICHELL, M.D., F.R.C.S.

THE *Western Morning News* announces the death on Saturday morning last, after only six hours' illness, of Dr. Thomas Michell, of Redruth, Cornwall. He was at a party on Friday evening, was taken ill at 4 o'clock next morning, and at 10 o'clock was dead. Dr. Michell studied at the London Hospital, taking his M.B. at the London University in 1861, and afterwards the M.D. He had a natural liking for severe study, and went in for the degree of Bachelor of Surgery, and subsequently in 1869 he became Master in Surgery. He thus obtained the highest degrees in both branches of his profession, and his sudden death at the early age of thirty-six years is deeply to be deplored as a loss to science.

DR. JULIUS BERNCASTLE.

WE regret to have to announce (says the *Australian Medical Gazette* of July, 1870) the death of this gentleman, which occurred on the 30th ult. at his residence, Greville-street, Prahran, whither he had only very recently removed from Melbourne. Dr. Berncastle, who was a M.R.C.P. Lond. and L.R.C.S. Edin., commenced practice in New South Wales as an oculist and aurist nearly sixteen years ago. Towards the end of 1867 he removed from Sydney to Melbourne. The deceased gentleman, who was in his fifty-first year, had travelled a good deal, and was the author of "Travels in China and the East," which was favourably noticed in the reviews of the day. He took a deep interest in the subject of snake-poisoning, having written a small pamphlet "On the Treatment of Snake-bites in Australia." He died of cerebral disease, after an illness of three weeks.

MR. MATTHIAS EVERARD HARE.

THIS gentleman died at Springbok, Namaqualand, South Africa, on the 3rd November, 1871, aged twenty-eight years. He was first exhibitioner of T.C.D. and M.B. T.C.D. He was district surgeon and Justice of the Peace at Springbok, and had endeared himself much to the inhabitants by his talents and kindness, and they are about to erect a monument to his memory.

THOMAS FRANCIS EDWARDS, M.R.C.S.

MR. EDWARDS had held for many years the post of medical officer of the Denbigh district of the St. Asaph Union, and his death, quite suddenly last week, apparently after previous indications of failing health, has caused great sorrow in Denbigh. He was possessed of considerable literary and scientific attainments, and enjoyed the esteem of all classes of the community.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examinations for the diploma, were duly admitted Members of the College at a special meeting of the Court of Examiners on February 8th:—

Chessall, William, M.D. St. Andrews, Horley, Surrey.
Liebreich, Frederick R., M.D. Berlin, Cork-street, W.

(In the list of new members published last week, the name "Alfred Henry Wood" should have been "Robert Arthur Henry Wood.")

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Feb. 2nd:—

Green, Charles Josephus, Sunningdale, Berks.
Turner, William Mulholland, King's-road, Chelsea.

The following gentleman also on the same day passed his first professional examination:—

Packhouse, Henry, Westminster Hospital.

ROYAL COLLEGE OF SURGEONS OF IRELAND. — At the quarterly examination held on the 18th ult. the following passed their preliminary examination in Arts:—

FIRST CLASS.—Peter Cutlar, Arthur Duff, Henry Killeen.
SECOND CLASS.—James B. Armstrong, William F. Bradey, Thomas Breen, William Byers, William Rogers, John D. Collier, Arthur Gerson, Francis E. Hamilton, Thos. M'Coy, Robt. B. M'Kittie, Charles Monks, Frederick R. Murray, Arthur W. Russell, John J. Wade, Michael Warren, John Weddick.
THIRD CLASS. — Thos. Alexander, Percival Butler, Cecil C. Connor, Thos. F. Falkiver, William Maher, Robert M'Neale, Thomas W. O'Donnell, Joseph Ryan, Charles B. Townsend, Henry C. Young.

MISS GARRETT, M.D., according to the "Globe," was married on Thursday to Mr. James Anderson.

THE French Hospital and Dispensary, in Lisle-street, Leicester-square, in consideration of the recently enhanced claims on its funds, has just received a handsome subsidy from the Orleans princes.

THE Edinburgh University Club held its quarterly dinner on Wednesday, the 8th inst., in the St. James's Hall, Regent-street. The chair was filled by E. C. Batten, Esq., of Lincoln's-inn-fields, barrister-at-law, and the vice-chair by Dr. Dyce Duckworth. The toasts of the "University of Edinburgh" and "Prosperity to the Club" were effectively given by the chairman, and the evening drew to a seasonable close after much of the rhetorical and vocal entertainment in which the resources of the Club are so strong.

LIVERPOOL LYING-IN HOSPITAL.—The annual meeting of this charity was held last week. The statistics of attendance and relief during the past year, as compared with those of the year preceding, shows a marked increase in all departments, save that of training nurses, but the falling off in the numbers certificated is regarded as exceptional. There were 233 confinements last year, giving 234 births, out of which there were 11 still-born. Three mothers and three children died. The Ladies' Charity in connexion with the hospital gave relief in 1841 cases; and there were 175 wet nurses registered. The usual vote of thanks was passed to the committees and medical officers of the institution.

VACCINATION.—At a conference of the Council of the Poor-law Medical Officers' Association and the Poor-law Committee of the British Medical Association, held at 9, Spring gardens, on Tuesday last, the following resolution was passed:—"That in the opinion of this conference the modifications of the vaccination districts now in progress at the instance of the Privy Council are not the best which can be devised for meeting the emergency of the present epidemic or securing the most efficient and universal vaccination, and are such as to inflict hardship on the Poor-law medical service. That in Ireland, vaccination arrangements of a much simpler character, carried out exclusively by the Poor-law medical officers, have proved eminently successful in stamping out small-pox. That Mr. Simon be requested to appoint an early day for an interview with the joint committee, so that they may be enabled to lay their views on this important subject before him."

Medical Appointments.

BARNISH, W. C., M.R.C.S.E., has been appointed Honorary Surgeon to the Wigan Dispensary, vice G. Daglish, F.R.C.S.E., deceased.

BEASLEY, J. G., L.R.C.P.Ed., L.F.P. & S. Glas., has been appointed Medical Officer for District No. 1 of the Dudley Union, vice D. W. Phillips, M.R.C.S.E., resigned.

BREWSTER, E., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Waltham District of the Melton Mowbray Union, vice J. Roberts, M.R.C.S.E., resigned.

COWELL, G., F.R.C.S., Assistant-Surgeon to the Westminster Hospital, has been elected Assistant-Surgeon to the Royal Westminster Ophthalmic Hospital.

EDGINGTON, Mr. R. W., has been appointed Resident Physicians' Assistant at the Queen's Hospital, Birmingham, vice J. Hunt, M.R.C.S.E., appointed Resident Surgeon to the General Dispensary, Birmingham.

GORE, W. H., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Admiralty Surgeon and Agent for Tramore, Co. Waterford, vice E. W. Waters, L.K.Q.C.P.I., M.R.C.S.E., deceased.

L'ESTRANGE, R., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Surgeon to the County of Wicklow Infirmary, vice A. Nolan, M.R.C.S.E., resigned, and since deceased.

LITTLE, F., M.R.C.S.E., has been appointed Medical Officer for District No. 4 of the Aylsham Union, Norfolk, vice J. W. Saunders, M.R.C.S.E., resigned.

LYLE, T., M.B., C.M., has been appointed Assistant Medical Officer to the Borough Lunatic Asylum, Newcastle-on-Tyne.

MARRINER, H., M.B., C.M., has been appointed House-Surgeon to the Clayton Hospital and Wakefield General Dispensary, vice R. Crean, L.K.Q.C.P.I., L.R.C.S.I., resigned, and appointed House-Surgeon to the Clinical Hospital and Dispensary for Children, Manchester.

NORMAN, J. W., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Dunster District of the Williton Union, Somersetshire.

O'DOHERTY, J., L.R.C.P.Ed., L.F.P. & S. Glas., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Cushendall Dispensary District of the Ballycastle Union, Co. Antrim, vice P. P. Stone, M.D., L.R.C.S.I., resigned.

POWELL, R. D., M.D., M.R.C.P.L., has been appointed an Assistant-Physician to Charing-cross Hospital, vice A. J. Pollock, M.D., F.R.C.P.L., M.R.C.S.E., appointed a Physician.

ROBERTS, J., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Melton Mowbray No. 1 District of the Melton Mowbray Union, Leicestershire, vice B. Norman, M.R.C.S.E., resigned.

SMITH, E., M.D., M.R.C.P.L., F.R.C.S.E., has been appointed an Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, vice W. Bickards, M.D., M.R.C.P.L., resigned.

SMITH, R. S., M.D., B.Sc., &c., has been appointed House-Surgeon to the Bristol Royal Infirmary, vice E. Ludlow, M.B., F.R.C.S., appointed Assistant-Physician.

TODHUNTER, J., M.B., M.C., L.K.Q.C.P.I., has been appointed Temporary Physician to the Fever Hospital and House of Recovery, Cork-street, Dublin.

Births, Marriages, and Deaths.

BIRTHS.

GALTON.—On the 1st inst., at Thicket-road, Upper Norwood, the wife of J. H. Galton, M.D., of a daughter.

KIRKMAN.—On the 23rd ult., at Barming-heath, Maidstone, the wife of Dr. Kirkman, of a son.

OGILVIE.—On the 7th inst., at Oxford, the wife of J. F. Ogilvie, M.D., Egyptian Medical Service, of a son.

PEACOCK.—On the 2nd inst., at Northallerton, the wife of J. B. Peacock, L.R.C.P.Ed., of a daughter.

TANNER.—On the 4th inst., at Henrietta-street, Cavendish-square, the wife of T. H. Tanner, M.D., of a son.

WOODHOUSE.—On the 8th inst., at Ranelagh Lodge, Fulham, the wife of Thomas James Woodhouse, M.D., F.R.C.S., of a son.

MARRIAGES.

HILLIARD—NICHOLLS.—On the 9th inst., at All Saints' Church, Dalston, Robert Harvey Hilliard, M.D., to Elizabeth Isabella, eldest daughter of Thos. W. Nicholls, Esq., of Kingsland-road.—No Cards.

MASON—SLATER.—On the 8th inst., at St. Mary's, Chislet, Kent, Thomas Edward Mason, M.D., of Deal, to Caroline, youngest daughter of Edward Slater, Esq., of Chislet.—No Cards.

TYLECOTE—HALL.—On the 8th inst., at St. James Episcopal Church, Edinburgh, Edward Thomas Tylecote, M.D., of Great Haywood, Staffordshire, to Rebecca, daughter of J. Lewis Hall, Esq., of Wardie-avenue, Edinburgh.

DEATHS.

BUCK.—On the 5th inst., at Patshull-road, Kentish-town, Henry Buck, M.R.C.S.E., aged 56.

CAMERON.—At Leeds, Robert Cameron, House-Surgeon at the Dispensary.

GASKARTH.—On the 31st ult., John Gaskarth, L.S.A., of Cartmel, Ulverstone, aged 59.

MORISON.—On the 31st ult., at Wellfield House, Wingate, John Morison, M.D., aged 54.

RICHMOND.—On the 5th inst., B. K. Richmond, M.R.C.S.E., of Bermondsey-square, aged 58.

WHITFIELD.—On the 5th inst., at Brighton, C. T. Whitfield, F.R.C.S.E., late Surgeon Royal Artillery, aged 81.

Medical Diary of the Week.

Monday, Feb. 13.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8 P.M. Mr. Barnes, "On a Case of Fatal Hæmorrhage from Fibroid Polypus of the Uterus." — Dr. Semple, "On Diphtheria, and the Diseases allied to it, or mistaken for it."

Tuesday, Feb. 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Dr. Foster, "On Nutrition of Animals."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Ballot.—8½ P.M. Mr. Callender: "Cases of Injury to the Brain."—Dr. Bakewell: "Pathology and Treatment of Malarious Fever."

Wednesday, Feb. 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, Feb. 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 12; other Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Dr. Odling, "On Davy's Discoveries."

Friday, Feb. 17.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. W. H. Flower, "On the Comparative Anatomy of the Teeth of the Mammalia."
ROYAL INSTITUTION.—9 P.M. Mr. James N. Douglass, "On the Wolf-Rock Lighthouse."

Saturday, Feb. 18.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Jowett, "On Socrates."

Notes, Short Comments, and Answers to Correspondents.

ARTISANS AND LABOURERS' DWELLINGS.

THE report and statement of accounts to be presented at the fifteenth half-yearly meeting to-day (Feb. 11th) of the shareholders of the Industrial Dwellings Company show a profit of £3521 on the half year ended 31st December, which being added to the net balance brought forward from last account, the directors are able to declare a dividend of 5 per cent. per annum, with a balance retained of £2607. The whole of the share capital, £125,000, has been subscribed, and an additional £125,000 is to be raised. An important matter, the assessment of the Company's dwellings, has now been satisfactorily settled, and the directors are thereby relieved of much anxiety they have hitherto experienced. Eight blocks on the Bethnal-green estate are nearly completed, and it is expected the remainder will be ready for occupation in September. The Company now possess 917 tenements completed, which, with 130 in course of erection at Bethnal-green, brings the total up to 1047, comprising 623 two-room, and 300 three-room tenements. With a few exceptions (72 in all) each tenement has a separate scullery, copper, water-supply, and other conveniences. The Company have paid a uniform dividend of 5 per cent. per annum ever since their operations commenced, and their dwellings are increasingly sought after.

Scoparius.—The use of the titles "medical practitioner" and "physician" in the first two cases seems to us a clear breach of the Medical Act. The use of the title "surgeon-dentist" is more doubtful. But it wou'd be worth while stating the facts to the Apothecaries' Society.

THE communication of *Mr. W. H. Blenkinsop* (Bournemouth, Hants) shall receive consideration next week.

Mr. N. Bower.—We are not aware of any such places. Cannot the things be put in an oven? If not, boil them well.

A Surgeon should apply to the Royal College of which he is a member.

DR. WHITMORE AND MR. H. HODSON RUGG.

To the Editor of THE LANCET.

SIR,—With your remarks relative to my letter in the *Marylebone Mercury* I to some extent agree. The language was strong, I admit. Lord Byron regretted having written some part of his satire against "The Scotch Reviewers." I will do the same by frankly owning that there is a sentence or two and a word or two which might as well have been left out. But the facts of the case as stated in my letter are indisputable, let who may be to blame. I cannot, however, agree with you that if I have a local grievance, or have fault to find with anyone respecting the way their official duties are performed, especially when a brother professional is the delinquent, I should make it known through a medical journal in preference to our local paper. I will now ask you to permit me to place on record the following horrible and revolting case, which was related to me by the father of the young man, and signed by him in the presence of a witness. He states:—

"I had a son, named Richard Waters, residing with me at 12, Huntsworth-mews, Dorset-square. He was taken with small-pox on the 18th of December. He was seen by the parish doctor on the 19th, who gave me an order for his removal to Highgate Hospital. The parish vehicle being engaged on that day, he did not go till the 20th. I went with him. When we got to Highgate, we waited half an hour at the gate on a very cold day, when a message was sent out, stating they had no room; that we had better try Hampstead. Having waited there equally as long in the cold, the authorities there told us the order was for Highgate; that another order must be got before he could be taken in. We then drove to the relieving officer's house in Lisson-grove, who was not at home. We then went to the workhouse. We waited there in the cold for another half-hour or more. They then put another man into the vehicle, and sent us back to Hampstead. If my son could not then be taken in, he was to be brought home. When we got to Hampstead, during the time we were away, they had taken more in, and my son could not be admitted. I brought him home to Huntsworth-mews, and the other patient was taken to the workhouse. My son went to bed, and was getting nice and warm, when in about twenty minutes afterwards the parish vehicle came and took him to the workhouse. The following day, I think it was, he was taken to Highgate, where he died a few days afterwards. Altogether we were about seven hours knocking about.

"January 31st, 1871." (Signed) "ISAAC WATERS.

Here was a man, helpless, sorely afflicted, hovering between life and death, driven to and fro, hither and thither, during most inclement weather, for seven long hours, whose life might possibly have been saved had this driving about from pillar to post not taken place, and had he had proper accommodation and attention from the first. The mother has since had the same disease, and recovered. Further comment is unnecessary. It speaks for itself from the grave to the authorities. But I hope I may be permitted to ask how it was he was not taken to the iron hospital in the parish stone-yard?—as I perceive from a letter of Dr. Whitmore's to *The Times*, dated February 1st, the following sentence:—"So long ago as the first week in November last the iron hospital in our parochial stoneyard was ready for the reception of small-pox cases; and within *two or three hours* after receiving information that the hospitals at Highgate and Hampstead could afford us no further accommodation, was enabled to receive patients into the local hospital." How was it, if the iron hospital was ready to receive patients from the first week in November, that, seven weeks after, Richard Waters was not taken there, instead of "knocking about six or seven hours" during most inclement weather to find a place to rest his weary frame in, and was not ready ten weeks after when my case was requested to be taken in? No language can be too strong to denounce such a case. I accuse no one; blame no one; but simply ask, who is responsible?

Yours faithfully,

H. HODSON RUGG.

Alpha Villa, Grove-road, St. John's-wood, Feb. 7th, 1871.

TO ENGLISH SURGEONS WHO HAVE SERVED IN THE GERMAN WAR HOSPITALS.

WE have been asked to state that Major Roerdansy, 4, Marine-parade, Dover, has been requested to pay £30 for travelling expenses, &c., to each of the English surgeons who did duty in the German hospitals during August and September of last year, and that he has been unable to discover the addresses of four of that number. He requests Messrs. Butler, Barclay, Hickman, and Warren, who proffered their medical services to the German Embassy in August, 1870, to forward their addresses immediately to Major Roerdansy, as above.

Mr. Hugh Norris (South Petherton, Somerset) communicates to us an interesting account of the recent death from hydrate of chloral. It shall if possible appear in our next.

Dr. Wiltshire's request shall receive attention.

Mr. J. A. Parry.—The best vaccine lymph is that from primary vaccination. But it is too much to say that the use of lymph from a revaccinated arm is useless. We cannot see how a little lymph taken from a revaccinated arm should be very injurious to the person from whom it is taken.

Dr. Archer Farr.—We should be glad to receive proofs of the reality of the discovery which Dr. Farr thinks he has made.

Mr. C. T. Smart will find the surgeon he wants at the address he gives.

THE SALE OF WINES AND SPIRITS BY GROCERS.

To the Editor of THE LANCET.

SIR,—I cannot but think that your correspondent, Dr. R. Martin, entertains and enunciates very one-sided and erroneous views respecting the effect of the above as inducing solitary secret drinking among women. To the question of Dr. Green, he gives an unequivocal affirmative, but fails to support his opinion by statistics or otherwise than by making empty statements, the tendency of which is to prove that many of the middle and lower classes of females are slaves to the most pernicious and demoralising vices.

The question propounded by Dr. Green is in itself premature. So short a time has elapsed since grocers were first empowered to add the sale of wines and spirits to their other sources of profit that it is impossible to say yet what may be the result of such licence. We may speculate on probabilities; but because we have evil arising thence, are we to ignore the possibility of a concomitant good?

Dr. Martin states as an axiom that in "all manner of sensual gratifications, indulgence will be proportioned to opportunity;" but in this case he is reasoning from false premises. He bases his deduction on the supposition that the opportunities of indulgence are greater, and in this he is mistaken. Public-houses were ever plenty; every street in London is alive with them; every country village can show its two or three; and even where the village is not, and but a few straggling tenements are to be found, there is also to be found a hovel where a barrel of beer is kept for sale, and three or four bottles of spirits are kept away in a corner closet, to be produced only for the accommodation of regular and well-known customers. At any one of these places, from the London palace to the road-side beer-shop, the means of "sensual indulgence" may be obtained, and not, as is the case with grocers, *necessarily in bottles*, but in half-pints, quarterns, or any quantity suitable to the purse of the purchaser. It is to these places that those who indulge in secret drinking come to have the bottle replenished.

I can see no harm in the substitution of cheap wine for beer. We know from analyses that many of the wines are good. Can we say so much for any of the beers?

So far as the sale of spirits is concerned, there are but very few grocers who sell them, on account of the expensive licence; and the purchasers are, as a rule, sober, well-conducted heads of families, who indulge in an occasional bottle on festal days, or who like to keep some in the house in case of illness. I write this advisedly. I have lived long in colliery districts, where the women are left much to themselves, and have every opportunity and inducement to drink; but I have never among that class seen the cheap wines or spirits abused, and I have been assured by the vendors that the demand for them is not considerable.

I cannot close my letter without adverting to a statement made by Dr. Martin—viz.: "One of the saddest facts of the present day is the rapid increase of intemperance among women," and he goes on to trace that fact to the sale of wines and spirits by grocers. Now, I was not previously aware that there was more intemperance among women of our day than marked the last or previous centuries; but, allowing such to be the case, why attribute it to causes which have been in effect but a few years? Alas! degenerate country! If women of the present day are induced to become drunkards because "horrid decoctions" at a low price are recommended to them by grocers, what must have been the state of uneducated England in the twelfth century, when good wine sold at 3*d.* per gallon?

I am, Sir, yours obediently,

Cuckfield, Sussex, Jan. 25th, 1871. OINOS.

CAB-DISINFECTION.

A Cab Proprietor writes to ask for a disinfectant which shall be inodorous, dry, and in all respects unobjectionable, while thoroughly preserving for after occupants of the vehicle immunity from all risk of infection. Can any of our readers assist him to such an agent?

J. O.—We fear not.

D. C., (Doddington.)—Chloral hydrate is not accumulative if the doses are separated by proper intervals. The dose advised by Dr. Oscar Liebreich is 2½ grammes (38 grains) for a male adult, as a hypnotic. As an anodyne, as much as 5 grammes (75 grains) has been given at a single dose; but this would only be permissible in the presence of extreme pain. It has been repeated so as to maintain prolonged drowsiness in several cases of traumatic tetanus. A few deaths from its use have been recorded, and several patients have presented alarming symptoms after large doses.

Mr. Albert Hind.—Mr. Nugent C. Walsh, P.L.B., Barrister-at-Law, has published a book on the general orders and extra fees affecting medical officers. It is inexpensive, and may be got through any bookseller. Every medical officer ought to have a copy.

Dr. R. Douglas Powell is thanked for his communication.

T. B. U. R.—We hardly know how to estimate the value of medicines; but, independently of medicine, 5*s.* for each visit in the day-time would be a moderate charge, if the distance were small. Every necessary or demanded visit should be charged, and every patient seen, except in the case of brothers, should pay a full separate fee. A visit to two brothers might be 7*s.* 6*d.*; to three, 10*s.* The masters and their families should be charged at the same rate. For fractures it is usually best to charge two or three guineas for the first putting up, and afterwards according to the attendance and care required. The obstetric fee refers, we suppose, to the masters' wives, and should be based on the local scale for ladies whose husbands have a similar net income. We fancy our correspondent's questions point to a feeling, somewhere existing, that a master has a claim to attendance at low rates because he can put a good deal of other work into the hands of the doctor whom he selects. To us, this seems simply immoral. It is the master's business to obtain for the boys the medical attendant in whom he has the greatest confidence. Suppose the master were to *say* to parents: "I employ Dr. A. to attend your son, although I think Dr. B. the best practitioner; but Dr. A. will attend my family cheaply, and Dr. B. declines to do so!"

Vaccinator.—The lymph of cases of revaccination is not considered suitable for use. The scab from a vaccinated arm is one of the recognised media for preserving and transmitting lymph. It is much used in India, but is not used in this country. The scab, when wanted for use, is moistened with water on the back of a plate.

Mr. G. V. Gibbs, (Darlington.)—The medical officer in question did not afford us the means for supplying the required information.

K. F. S.—We think our correspondent's name might be attached to the interesting case forwarded. Would there be an objection?

Medical Degrees in Absentid.—Our correspondent is thanked for the information which he sends us, the use of which shall be considered.

PROFESSOR BENNETT AND ARMY SURGEONS.

To the Editor of THE LANCET.

SIR,—Dr. Bennett occupies a position of eminence as Professor of Medicine in a large University. He is generally credited with an endeavour to train his students in exact methods of observation, and he has embodied the results of his clinical observations and experience in several writings. But, Sir, he has, I think, lately been pointing his "mercurial moral" with a baseless illustration in the shape of a cachectic soldier, who, for all we know to the contrary, may ere long be catalogued among his clinical cases as a glaring instance of the horrible effect of repeated salivation. The probability of the man's statements being unreliable seems never to have entered Dr. Bennett's mind. A mercurial shadow appears to dog his steps, and to cast a gloom over his medical spirit, and darken "the eyes of his understanding." Two pills, which the man could not swallow, are allowed to dissolve in his mouth, and the following morning his teeth are loose and his gums are sore—and appear to have remained so ever since! He afterwards had an unknown something given him; it was a powder, and white—calomel, of course. In short, there is, according to Dr. Bennett, the history of a chronic mercurial stomatitis, occasionally varied by an acute one from renewed administration of the poison. With regard to the form of skin disease described by him, I can state from personal observation that I have seen several such cases in invalids from India who have taken no mercury at all; and I feel confident that it was syphilitic in its nature. A tempting text for sensationalism was not to be resisted, and Dr. Bennett indulged in it at the expense of men of whom he evidently knew nothing, and probably cared less. We may well ask whether some of Dr. Bennett's other deductions, as a scientific observer, may not be based upon data equally, if not as manifestly, questionable? The individual case must be left, however, to the medical officers whose patient the soldier was; but on the general question I would say a few words. It is only a few years ago that a Commission, composed of the most eminent professional men in London, inquired into this question in connexion with the treatment of venereal diseases in the army, with a result which ought to have convinced everyone. Dr. Bennett is probably not aware that at a meeting of the Medico-Chirurgical Society of London, a hospital surgeon made an exactly opposite charge, and declared that the prevalence of constitutional syphilis among soldiers was the natural result of the disuse of mercury by military surgeons for this disease. A distinguished Dublin physician went even further, and preferred a much graver charge; for he declared that some most disastrous results had occurred in his practice, which were attributable to the culpability of military surgeons in not prescribing mercurials for the treatment of syphilis in officers who, ignorant of the risk, subsequently married, and infected their wives and offspring. Army medical men, whatever they may feel with regard to such assertions as these, seldom take the trouble to controvert them, considering that it is only necessary to leave such conflicting statements to answer one another. Let Dr. Bennett's views be ever so right or wrong about mercury, army medical officers are not much indebted to him in this matter, as he will find if he takes the trouble to search their past regulations and writings. To say that he never named army medical men is nothing to the point, as the "thousands of soldiers" could only have been treated by them. Let us suppose that a patient in Edinburgh alleged that he had been previously salivated at St. Bartholomew's Hospital, for example, and that Dr. Bennett had been induced, in commenting on the case, to state that thousands of patients from that hospital had suffered irretrievably in health in consequence of mercury; that Mr. Paget demanded the evidence of this, and that Dr. Bennett replied, "I never adverted to the medical staff of St. Bartholomew's at all; what I said had reference to Mr. Abernethy's time, and long before that"!

Now as to Dr. Macloughlin. It is open to objection, on the score of taste and charity, to comment adversely on the career of a man now dead; but if people concealed their expression of contempt for his utterances, it was simply out of forbearance and respect for his age. Dr. Macloughlin, on the other hand, exhibited no scruple in maligning medical officers; he was too prejudiced, let us hope, to have any. He haunted the Horse Guards for years, and hunted for mercury everywhere; and so keen was his sense of delight that the sport was the same to him in pursuing a phantom as the real thing. Editors of military and medical journals were bored to death with his letters, and he shed his pamphlets like leaves on members of Parliament. His doctrines were, that there was no such thing as a venereal virus, that syphilis had no existence, and that what went by that name was the product of mercury and ignorance alone!

In conclusion, I would ask why have we, as a profession, so often to deplore the existence of a lack of generosity on the part of some member? Sometimes this arises from a spirit of rivalry in the struggle for existence, from ignorance, or what not; but Dr. Bennett is certainly not ignorant, nor, let us hope, struggling for existence. Whether he now shows himself lacking in the requisite generosity to withdraw his statements or not, is a matter of more indifference to us than it should be to him.

Yours obediently,
A. LEITH ADAMS,
February, 1871. Surgeon-Major, 1st Batt., 22nd Regiment.

To the Editor of THE LANCET.

SIR,—With reference to Professor Bennett's charge against the officers of the department to which I have the honour to belong, I beg you will allow me to record the fact that during my service of six years not a single case of salivation or other abuse of mercury occurring in the person of a soldier has come under my notice. Duty on the staff involves frequent change of regiments, and in this way I have had the opportunity of becoming acquainted with the mode of treatment pursued by a considerable number of different medical officers both at home and in India. Experience thus gathered has taught me that no drug in the Pharmacopœia is so seldom used in military hospitals as mercury, and that none would be so little missed if never issued to them. I have known calomel occasionally prescribed in small doses, with colocynth, &c., merely as a purgative, and I have seen bichloride of mercury cautiously tried in obstinate secondary syphilis; but these are the only cases in which I have seen mercury used, and in no case, I confidently add, have evil results followed. The idea of treating abscess of the liver by mercury I pass over as too palpably absurd for anyone's credulity.

It is amusing to read Dr. Bennett's professed anxiety "not to offend in any way his medical brethren in the army," and in the same sentence to find him reiterating that "thousands of British soldiers had been rendered unfit for service by the abuse of mercury"!

I am, Sir, yours truly,
WM. ROBERTSON, M.A., M.B.,
Dover, Jan. 30th, 1871. Staff Assistant Surgeon.

To the Editor of THE LANCET.

SIR,—Previous to seeing your article I heard of the meeting in the Medico-Chirurgical Society here, and the comments made by Dr. Rutherford on the paper read by Prof. Bennett. There is no doubt that Prof. Bennett made a most sweeping and unwarrantable assertion when he said that thousands of soldiers were sacrificed in the army by the excessive administration of mercury; and, furthermore, he brought *the* soldier from whom he gained his experience before the last meeting to prove this fact, but unfortunately failed to do so. We all know—at least those who have studied under Prof. Bennett—that this anti-mercurial system is his hobby. I only hope that he will not ride it too far. His great stand-point is that mercury does not act upon the liver. How does he account for the bilious colour in the stools after *the administration of mercury*? What would the professor say to the fact that in several cases of acute tropical dysentery, after all the astringents in the Pharmacopœia were tried, and when the patient was at his last ebb, *mercury* saved him?—and this fact I have experienced frequently, and I judged of his safety from the yellow colour of the stools. Where did this bile come from? Or was it bile? I question very much if the professor ever saw an acute case of hepatic or dysenteric disease. Why, then, should he throw a slur on army medical officers, very many of whom studied under the professor himself? Our thanks are due to Dr. Rutherford in the matter.

Yours truly,
Edinburgh, Feb. 2nd, 1871. AN ARMY MEDICAL OFFICER.

REVACCINATION.

THE performance of revaccination must be left to the discretion of the person presumably requiring it and his medical man. We do not believe that the operation, if adequately performed, with good lymph and ordinary skill, could leave the most delicate patient any the worse. The letter of "Paterfamilias" in *The Times* on the subject is inspired by groundless fear. There can be no possibility of evil resulting from the operation, even though performed on a septuagenarian.

H. G. D. is entitled to recover.

Mr. W. H. Borkam.—We shall be happy to receive a short account of the cases.

OUT-PATIENT HOSPITAL REFORM.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to acknowledge in your next issue the receipt of the following sums towards defraying the expenses incurred by the Out-patient Hospital Reform Committee:—

Mr. Walter Coulson	£1	1	0	Dr. Ogle (Derby)	£0	5	0
Mr. F. M. Corner	0	10	0	Mr. Royes Bell	0	5	0
Mr. G. C. Coles	0	10	0				

I think, Sir, you will agree with me that this is not a very satisfactory reply to the question which I asked in my last appeal, as to whether the meeting that appointed us a Committee intended us to pay all expenses as well as do all the work. We have already paid our fair share of the former, and, unless other donations are sent to me at once, I must make up the deficiency (about £20), as the accounts must be paid forthwith. Other expenses have also to be incurred to complete the work which the Committee have in hand.

Your obedient servant,
George-street, Hanover-square, Feb. 1871. ALFRED MEADOWS.

*** We regret to find that the members of the profession who took part in the movement for the reform of hospital out-patient relief are so "backward in coming forward" to defray the expenses necessarily incurred in carrying out their wishes. The letter of Dr. Meadows adds a few more names to those already announced; but there is still a deficit which, if fairly shared by the whole of the one hundred and fifty gentlemen who attended the meeting last March, would press hardly on no one.—ED. L.

Mr. Robert Pattie, (Walsall.)—We fear that no good could follow the publication of the letter. In reply to the questions—1. The coroner has full power to order a post-mortem examination whenever he thinks fit, and to select the practitioner by whom it shall be performed.—2. Questions of courtesy hardly admit of argument. Doubtless it would be better if the course suggested were pursued. — 3. In hospitals generally, post-mortem examinations are made by a *paid* resident officer. Such an officer has no claim to a fee from the coroner; and the magistrates would probably disallow a fee paid to an outsider, unless the resident were put aside for some valid reason, as in a case that might involve a charge against him. 4. In workhouses the coroner employs the medical officer, or someone else, at his option.

Mr. A. Van Best's (Aberdeen) report shall receive early publication.

THE MEDICAL CLUB.

To the Editor of THE LANCET.

SIR,—As the Medical Club is at present under discussion in your columns, will you allow me to suggest that the title of the Club is objected to by many members of the profession as being too exclusive. No doubt when first projected it was intended to be strictly a professional Club, but as such it has evidently failed; and when it is remembered how many opportunities exist in the numerous Medical Societies of London and the provinces for the meetings of the profession, it is not a matter of much surprise.

Medicine, in its higher character as State medicine, has become so intimately related to other sciences and arts, engineering, architecture, manufacture, &c., that it would be desirable to extend the basis of the Club, and admit the members of other professions. I think, therefore, if the Club were to assume the title of "Science and Arts Club," it might fairly look forward to a new and more successful career; or if this were deemed too wide a field for it, it would probably be looked on with greater favour by some of our profession if it were known by the name of The Bacon, The Newton, The Cavendish, or, as I believe has already been suggested, The Sydenham.

Yours very truly,

Bolton-row, Feb. 6th, 1871. CHARLES ROBERTS.

To the Editor of THE LANCET.

SIR,—Dr. Atkinson deals in fallacies, not in facts; and when he insinuates that I have made a profit out of the amount charged for travelling and personal expenses, I think he must "measure other people's malt by his own bushel." Such a course might have suggested itself to Dr. Atkinson's mind; but it certainly never entered into mine. I not only "venture to deny" such an imputation, but, further, to assert that for the first two years of the existence of the Club I made no charge at all for travelling or personal expenses. My travelling and personal expenses during the last year, including seventeen journeys to London and back, amounted to £44 12s.

Considering Dr. Atkinson was not present at *either* of the meetings when the subject of the future subscriptions to the Club was under discussion, I am surprised at his "assertions," especially when he says that "at all the meetings amendments were proposed." The fact is, only one amendment was proposed at the first meeting, for discussion at the second meeting, and that amendment was ultimately withdrawn by the proposer and seconder without a vote being taken upon it. The only proposition upon which the meeting was called upon to vote was the one approving of the increase in the subscriptions, and *it* was carried unanimously. It is true there was a long discussion upon the subject, as is usual at such meetings, and I have no doubt had Dr. Atkinson been present he would have "seen the need" of still further extending it.

Dr. Atkinson is again in error when he says "proxies were asked for from country members in support of one of *my* proposals, and asks why were not those proxies used." The truth is, the proposition to which Dr. Atkinson refers was not mine at all, and never recommended itself to my judgment. It was adopted by the Committee as a sort of compromise, and sent to the members by Mr. Bewley, the Secretary, at their request. The reason the proxies were not used was because the members present objected to that mode of voting, as tending to stifle discussion—an opinion in which I fully concurred.

With regard to increased subscriptions of original members of the Medical Club, the broken faith, and the suppressed utterances of which Dr. Atkinson complains, it is absurd to hold me personally responsible for the actions of the Committee and members in public meeting assembled; nor is it very complimentary to the Chairman or members present to assert that they acted at my "instigation."

Dr. Atkinson has the advantage over me when he states that "there are other Clubs in London (of course of equal character) carried on at a lower rate of subscription than the Medical Club as now settled." For the benefit of such Clubs, and the advantage of those who may wish to join them, perhaps Dr. Atkinson in his next letter will be kind enough to give their names and description.

As to the amount advanced by me for the purchase of furniture, &c., now over three years, and not, as stated by Dr. Atkinson, a "little over two years," taking into account the heavy wear and tear at a Club, and the sacrifice and expense attending the public sale of such property, it was estimated by a competent valuer (not myself, as stated by Dr. Atkinson) that one-third the original cost was the most that could reasonably be expected to result from an auction, should such a proceeding have been necessary. If Dr. Atkinson thought the valuation too low, why did he not challenge it at the proper time, at the general meeting, when such a subject could have been more conveniently discussed than in the columns of a public journal?

I have now, Sir, answered every item of Dr. Atkinson's letter, and, in conclusion, allow me to state that I challenge the fullest publicity and inquiry into the affairs of the Club. The whole of the accounts for the past year have just been investigated by Mr. Cleghorn, a member of the Committee, and the books, vouchers, and everything connected therewith will be open to the inspection of yourself or any member of the Club, past or present, who will take the trouble to make an appointment with Mr. Bewley, the Secretary, for the purpose. Your obedient servant,

February 6th, 1871. LORD MARSH.

*** This controversy must now close. It is very apparent that no good can arise from its farther continuance. It would be very desirable if some arrangement could be come to with the complaining members, so as to retain their connexion with the Club, while securing its stability.—ED. L

Mr. G. F. Wills rather mistakes the tendency of our observations. The original and properly so-called cottage hospitals were established in mere villages or rural districts, where the neighbouring practitioners were not too numerous to hold office in them. We object to small hospitals in country towns only when their tendency is to make a "hospital staff" on a very slender basis, and unreasonably and unfairly to deprive the remaining practitioners of work that they like, and that they would otherwise have done with credit to themselves and advantage to their patients. We spoke quite generally; and, in a place where the supposed conditions are not fulfilled, our objections would fall to the ground.

M.D., (Dover.)—A. is clearly entitled to reckon every charge for ordinary *professional attendance*, whether the patient were lunatic or of sound mind. We do not think he would be entitled to reckon charges made to a *resident patient*, if that is what is meant.

Dr. Thudichum's note shall receive attention. The paper on "Surgical Experiences of the War on the Continent" has not yet come to hand.

ACTION OF CHLORAL ON THE BLOOD.

To the Editor of THE LANCET.

SIR,—At a recent meeting of the Obstetrical Society (see THE LANCET, Jan. 21st, page 86), Dr. Playfair remarked that he was unable to divest himself of a fear that in a certain case of puerperal convulsions, chloral, having first acted admirably, eventually contributed to the fatal result. A large and watchful employment of this drug leads me to believe that his apprehension was well founded.

It is supposed that chloral undergoes in the blood a change accompanied by the evolution of chloroform, just as occurs to a solution of chloral when treated with liquor sodæ. But, while thus changing its own form and constitution, how does it affect the constitution of the blood? Clinical facts have been tending to show that the blood does not simply act as an indifferent or mechanical channel for the distribution of chloral, but that the fluid undergoes change of composition itself, and this in the direction of dissolution. In a large majority of cases the seasonable use of a proper dose of hydrate of chloral is, doubtless, productive of unmixed advantage; in others there is a sequel of neediness, and in others such marked and persistent pallor as to suggest that blood damage has been undergone.

Not long ago a lady, aged about forty-five, stout, and said to be perfectly healthy, was seized at midnight with backache, headache, rigors, and vomiting; much aching and sleeplessness continued for three days and nights, for which successive doses of chloral, from forty to sixty grains, were administered. I saw her on the fourth day, when she was evidently suffering from moderate small-pox, after vaccination, and from concurrent purpura; small ecchymoses being freely distributed over the chest and abdomen, and the urine deeply dyed with blood. The tongue, breath, and general emanations all bespoke blood disorganisation. Chlorate of potash, tincture of perchloride of iron, and port wine were employed liberally. The hæmorrhage ceased; but in forty-eight hours (the sixth day) she died of syncope while sitting up. After death, purpuric staining was rather considerable; a black alvine discharge rendered it not unlikely that internal hæmorrhage had preceded death. There was no œdema anywhere, and the small-pox eruption, though distinct, was thinly scattered and trifling. Inquiry showed at once where the latter had been caught.

Did chloral contribute in this case to the rapid and fatal disintegration of the blood? The symptoms were just those of small-pox concurring with albuminuria. Can chloral degrade the blood as urea does? I never liked chloroform for puerperal convulsions, which are almost invariably uræmic, and certainly should not give chloral.

Without entering farther into the subject now, I cannot help suggesting as a most important problem the inquiry, How far, and under what circumstances, does chloral practically become a blood poison?

Yours obediently,

Maidstone, Jan. 24th, 1871. STEPHEN MONCKTON.

Dr. George Ryding.—We think our correspondent acted quite rightly in refusing to give a certificate in a case attended by a chemist, and dying three minutes after he was called in. Such cases should be inquired into by a coroner. One object of a coroner's inquest is to ascertain whether there has been any neglect in the use of proper precautions or treatment. Practitioners should act as our correspondent did, and should support brother practitioners in so acting.

Mr. John Atkinson, (St. Bartholomew's.)—We fear that it is beyond our power to suggest any course. Perhaps, as soon as our correspondent has the power to do so, he will take up the matter himself.

A. B. is thanked. Further information on the subject would be esteemed a favour.

THE PROFESSION IN LINCOLN.

To the Editor of THE LANCET.

SIR,—I regret that my experience does not bear out the statements of your correspondent, Dr. Lowe. I have not found Clubs "go a begging for a doctor." Half-guinea midwifery is extensively practised. Last month I was asked to attend three cases, one and two miles from my residence, for 10s. 6d. and 15s.; but declined doing so for less than 12s. and £1 1s., which being thought too much, they went elsewhere, and I think it fair to conclude that they got attendance on their terms. This does not look much like the midwifery fees being "from one to five guineas." The vaccination fee is in some, but certainly not "in all, cases" five shillings. I experience great difficulty in getting any fee from those who object to go to the public vaccinator; many decline to pay because, as they tell me, others do not charge. In justice to the working classes of Lincoln, Dr. Lowe's sweeping assertion, that those who practise 10s. 6d. midwifery get paid once in three times, and only on demand, is, as far as I am concerned, not correct. In 1870, I was paid for 73 out of 79 cases without any demand. Some time ago I was requested to take three Clubs, the members of which paid 3s. a head per annum; but I refused to accept them under 3s. 6d., which was at once conceded by two of them; but I was told that the third one was taken on their terms by someone who, I suppose, was "short of a job." Judging from this, I think it is only necessary for us to come to an understanding to place things on a more satisfactory basis. I am, Sir, yours truly,

Lincoln, Feb. 4th, 1871. CAGUNA.

Messrs. Calvert and Co., (Manchester.)—We did not contemplate, by the addition of the agent referred to by our correspondents, the disinfection of the linen, which was to be subjected to a dry heat of 300° F., or to the process of boiling. Chloride of lime, on account of its properties as an aërial disinfectant, is generally present in or near a sick-room, and the addition of a small quantity of this substance to the water in which the linen is at first placed before it is removed and subjected to boiling, can do no harm.

A Constant Reader and others.—Medical men are exempt from military service and that of the militia.

Mr. W. M. Coates.—Our correspondent is thanked for his letter. We could scarcely make public so serious a charge of commercial fraud without being prepared either to give proof or our authority.

X. Y. Z.—It is certainly unprofessional for a Fellow of the Royal College of Surgeons, or indeed any duly qualified practitioner, to be an agent for "patent food" or "patent medicines."

A CORRESPONDENT wishes to ascertain when he may expect the second volume of Lane's Surgical Dictionary to be issued.

WORKHOUSE DIETARIES.

To the Editor of THE LANCET.

SIR,—I shall feel greatly obliged to any workhouse officer who will communicate to me the way to reform that perpetual transcribing of wardsmen's and women's dietaries, as also the weekly entry of extras for those employed in the kitchens, laundry, &c., to say nothing of the snuff, butter, and tobacco. During the thirteen years I have watched this process, many Government volumes must have been filled with these items, which do not pertain to or interest the medical officer in any way. I grieve for the book waste, but mostly for the time wasted by my deputy in effecting the weekly transfer for my signature.

I am, Sir, yours obediently,

Kidderminster, February, 1871. SAMUEL STRETTON.

*** Mr. Stretton is only in the same false position as other workhouse medical officers. He signs weekly for extras that he really never orders, and as to the propriety and distribution of which he is completely ignorant; yet he must continue the laborious farce until it shall please the Poor-law Board to order otherwise. These forms were, in fact, drawn up by a non-medical member of the Board thirty-five years ago, and we need scarcely say that they are quite unsuitable. If the chief medical adviser, Dr. E. Smith, would divert his great energies from the noble work of cutting down the food of children, and complaining of the enormity of feeding paupers on bacon, to this more common-place topic, he would be doing some good. We would advise that the subject should be discussed by the Poor-law Medical Officers' Association, and that they should memorialise Mr. Goschen on the necessity of reform.—ED. L.

LOCAL SELF-LAUDATION.

Dr. Garstang, of Blackburn, writes to express his strong disapproval of a puffing paragraph that appears about him in the local *Times*. He had nothing to do with it. We hope Dr. F. Page, of Southsea, is equally irresponsible for the far from professional announcement of his success in a tenotomy case that has been inserted in the local paper.

Mr. A. Gilchrist, (Bloomsbury.)—We regret that we are unable to afford our correspondent information as to where he could procure copies of a pamphlet on Snake-bites, by Prof. Halford, of the University of Melbourne. If we received a copy, we have been unable to trace who has possession of it, otherwise we should have much pleasure in complying with our correspondent's wishes.

Dr. Whiteway Wilkinson's (Barnsbury) objection to the use of funeral carriages in which the relatives of patients who have died of small-pox have been conveyed is well founded; while the question how to disinfect them is not beset by the same difficulties as in the case of cabs.

Mr. E. G. Barnes (Eye, Suffolk) is informed that his paper has not been received.

DISEASE OF THE METATARSUS.

To the Editor of THE LANCET.

SIR,—In Dr. Neale's case of ulcerating corn I fear he will find the bones affected more extensively than he anticipates. Nothing, I believe, is so deceptive as the external indications of disease of the tarsus and metatarsus. In illustration of this, I would briefly mention the points of a case almost similar to his, now under my care.

A girl had a corn on the inside of the metatarsal bone of the great toe for four years. In the middle of this was a very small hole, from which sanious matter exuded, always in small, often in large quantities. A very fine probe carefully introduced impinged on roughened bone, and penetrated horizontally to some distance. The external appearance of the foot was absolutely unaltered; nothing was to be seen but a white patch about the size of a sixpence, with this weeping sinus in the middle. A more thorough operation being objected to, the corn was removed, and the subjacent bone gouged as far as possible, though, as was recognised at the time, unavoidably to an insufficient extent. The wound, though carefully dressed from the bottom, assumed on healing precisely the character of the original sore. *Carte blanche* was then given, and a tentative incision having been made, the whole median aspect of the metatarsal bone of the great toe was found to be hopelessly carious, the compact tissue on the inner side being unaffected, save for a small hole, through which the probe passed. It was then removed together with the great toe; and the upper half of the second metatarsal bone, and the internal cuneiform bone, which formed a continuous mass of carious tissue with the head of the first metatarsal, were also excised with gouge and forceps. The wound has now nearly healed, no trace of a sinus being left, and there is no doubt whatever that the patient will recover with unimpaired usefulness of the foot.

I remain, Sir, yours truly,

MAXWELL REILLY,

January, 1871. Surgeon, Wigan Union Infirmary.

An Old Surgeon has our sympathy in the matter of unstitched LANCETS. But what is to be done? The law, regardless of the proverb that "a stitch in time saves nine," has made it impossible for us to keep our Sibylline leaves together in the old way without increased cost for postage. Which course, then, would our correspondent prefer: to get his servant to stitch THE LANCET for him immediately on its arrival, or pay the Government charge for the postage of stitched publications?

Mr. James Hall, (Sheffield.)—Try Hansard.

WE have to apologise to Dr. Wm. Powell for having mistaken him for Dr. Wm. Edward Powell, late of Farnham, in our notice of a testimonial presented to him by the Governors of the Torbay Infirmary.

M.D. is thanked for Dr. Dwane's circular; but the document contains its own antidote.

G. H.—Ten shillings for members of the family and five shillings for servants are the fees our correspondent is entitled to for revaccination.

A Constant Reader.—We have the best authority for stating that Professor Huxley did not sign the protest against compulsory vaccination. Our correspondent will find the subject treated in another column.

Mr. Relfe.—Many thanks.

VACCINATION.

To the Editor of THE LANCET.

SIR,—There are vaccinators who vaccinate in one spot only, and with dried lymph, and who make one point serve for two or three patients! Now, Sir, is it possible by such a process to stay the ravages of small-pox? Dr. Seaton, in "Russell Reynolds's System of Medicine," says the lymph should be taken direct from an arm, and inserted in *five* places, if punctures be made; or in *three* or *four* if the tatooing or scratching plan be adopted. Surely, at a time like the present, every vaccination ought to be thorough and protective, and the public should be enabled to judge for themselves whether it be so or not.—Yours truly,

D. HOOPER, M.B. & B.A. Lond.,

Trinity-square, Feb. 2nd, 1871. Physician to the Surrey Dispensary.

*** Surely our correspondent is wrong in saying that any such vaccinators are to be found at the present time. The only secret of good vaccination is the insertion of lymph copiously.—ED. L.

PAY OF MEDICAL OFFICERS.

AMONG the items of intelligence contained in the new Army List for this month, is to be found a notification to the effect that on and after April 1st, 1871, the pay of medical officers not attached to regiments will be issued at home stations by the control paymasters of the districts in which they are serving, instead of by the general agent as heretofore.

Non-Combatant.—Yes.

A Subscriber.—Without a better knowledge of the case than our correspondent affords, we could not suggest the appropriate treatment. There may be some constitutional influence to overcome.

Mr. B. Fitzgerald.—Kesteven's Manual of Domestic Medicine would probably answer the purpose.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. Rutherford, Edinburgh; Prof. Huxley; Dr. Wilks; Mr. Charles Hawkins; Mr. Jebb; Mr. Gilchrist; Mr. G. Cowell; Mr. Poole; Mr. R. B. Gibbs; Mr. Welling; Dr. Blenkinsop, Bournemouth; Mr. Rugg; Mr. Adams; Mr. Whitwell; Mr. Wright, Dover; Mr. Yate; Mr. Williams; Dr. Ewens; Dr. Andrew, Earl Soham; Mr. R. Czerny; Lady Duncombe; Mr. Forster; Mr. Wood, Liverpool; Mr. Porter, Mullingar; Mr. Fry; Mr. Bower; Mr. Barnes, Eye; Dr. Phillips; Dr. Lory Marsh; Dr. Best; Dr. Lyle; Mr. Smart; Dr. Brown, Rochester; Mr. J. Atkinson; Mr. Rickards, Birmingham; Mr. B. Baker; Mr. Baynes; Mr. Taylor; Mr. Adams, Coventry; Mr. Robinson; Mr. Fenn; Dr. Morrison; Mr. Buckell; Dr. Mason, Sheffield; Dr. Smith, Bristol; Mr. J. Hall, Sheffield; Mr. Brown, Dorking; Dr. Wilkinson; Dr. Dunlop, Letterkenny; Dr. Thudichum, Kensington; Mr. Rolfe; Mr. C. Roberts; Dr. Tylecote, Stafford; Mr. Thompson; Mr. de Lisle; Dr. Gore, Limerick; Mr. Howard; Dr. Ransome, Manchester; Mr. Raymond; Mr. Whiteman; Dr. Wills, Crewkerne; Dr. Borham, Halstead; Mr. Seabrooke; Mr. Perry; Dr. Sheehy; Dr. Taylor, Nottingham; Mr. White; Mr. Boyd; Mr. Green; Mr. Newbery; Dr. Horne; Dr. Hooper; Mr. Johnson; Mr. P. White, Denny; Mr. Crawford; Dr. Fox, Broughton; Mr. Jackson; Mr. Garstang, Blackburn; Dr. W. Greatrex, Kidsgrove; Mr. Deacon, Ottery St. Mary; Mr. Stretton, Kidderminster; Dr. J. H. Hinton, New York; Dr. Kirkman, Maidstone; Dr. Wyllie; Mr. de Berdt Hovell, Clapton; Messrs. H. and C. Schoetensack; Dr. Tomlinson; Mr. Drage; Mr. Venman; Mr. Hartley; Mr. Lever; Mr. Scrivener; Mr. Cooke; Dr. Tibbits; Mr. Reilly; Mr. Tapping; Dr. Powell, Torquay; Messrs. Calvert and Co., Manchester; Mr. Highatt, Gosport; Mr. Jones; Mr. Morgan; Dr. A. De Renzy, Kingston; Dr Moultt; Mr. Horley; Mr. J. Foster; Mr. R. de Fenwick; Dr. Morris, South Petherton; Mr. Lamforay; Dr. Stephens; Mr. Marson; Mr. Overdauss; Mr. Dickinson; Dr. Barry, Twickenham; Medico; M. D.; Medicus; Anti-puff; Quirens; L. R. C. P.; A Constant Reader; Knocked into a Cocked Hat; A Civil Surgeon of Twelve Years' Service; J. B. U. R.; Cacouna; An Army Medical Officer; &c.; &c.

Chicago Republican, Malvern News, Milk Journal, Monthly Homœopathic Review, Croydon Chronicle, Canterbury Journal, Blackburn Times, Indian Medical Gazette, Portsmouth Times, Liverpool Albion, Glasgow Medical Examiner, Western Daily Mercury, Cape Argus, Worcestershire Chronicle, Newtown Express, Liverpool Daily Courier, Yorkshire Post, Marylebone Mercury, Sussex Express, Lloyd's Weekly Newspaper, High Peak News, Southport Independent, County Express, and *Medical Freedom* have been received.